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ABSTRACT

This monograph evaluates the equity, adequacy, and efficiency of the Illinois system of school finance. After a brief introduction outlining the purpose and limitations of the study, it first develops two operational definitions of equity, based on disparity measurements and on the association between district spending and local wealth. The results of the equity monitoring are presented in seven tables with corresponding charts for the previous 16 years. The next section similarly begins with operational definitions of educational adequacy, based on comparisons with other states, and follows with an explanation of tables showing Illinois operating expenditure per pupil 1973 through 1986. The final section discusses policy implications of the foregoing fiscal analysis. The conclusion drawn is that Illinois is not equitably funded for K-12 education, and that the situation relative to equity is growing progressively worse. Approximately 400 million new dollars are needed to remedy the situation, and this can only be achieved by raising the personal income tax rate. Notes and references are included, and the tables and charts cited in the text are appended. (TE)

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This may be considered as Volume II of Constitutionality of the K-12 Funding System in Illinois, the third publication in the MacArthur/Spencer Series.

MacArthur/Spencer Series Number 4

DOCUMENTING A DISASTER: EQUITY AND ADEQUACY IN ILLINOIS SCHOOL FINANCE, 1973 THROUGH 1988

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With Special Appendix
THE CURRENT GENERAL STATE AID FORMULA IN ILLINOIS
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This series of monographs is dedicated to Professor Lucy Jen Huang Hickrod, late of the Sociology Department of Illinois State University. Death has forever taken Professor Huang Hickrod from intellectual labors, but she remains an inspiration to her husband, her family and her many friends. Sic transit Gloria Mundi.

I. Introduction

It was another cold December day when Thomas Paine wrote his immortal call to arms: "These are the times that try men's souls. The summer soldier and the sunshine patriot will, in this crisis, shrink from the service of his country, but he that stands it NOW, deserves the love and thanks of man and woman." In educational finance these are indeed times that try men's souls. This monograph was written after "Black Monday" in 1987; and, unfortunately, it shares the doom and gloom of most financial writing of this period. Educators are too often found in the role of the boy who cried "wolf" once too often. The taxpayer knows that any educational writing that begins with "crisis" will end with a sharp dive into his or her pocket. But a responsibility is a responsibility, and this Center has been monitoring school finance matters in Illinois for just short of two decades. Never, in that 20 year period of time, have affairs been as grim or as dismal as we are forced to report in this study. There are a few silver linings to be reported here and there, but the general outlook is as gray and forbidding as the weather outside the window of the study from which this report was written.

Since our subject matter is so stark, we have omitted the historical and literary analogies which often are found sprinkled in Center reports. While these are fun to write, they probably take something away from the impact of the report. Nor is there any great need to dwell upon the rationale for the selection of school finance goals to be measured. Earlier reports of the Center can be consulted as to the rationale for the selection of the goals of "equity" and "adequacy."[1] Statements as to the philosophical basis of equity and adequacy can also be found in earlier studies in this special series of studies supported by the MacArthur and Spencer Foundations.[2] This monograph is also intended to follow as a sort of second volume to the extensive legal study of the constitutionality of the Illinois school finance system by Professor David Franklin which was issued earlier by this Center.[3] Both the American Educational Finance Association and the MacArthur/Spencer study here at the Center have selected the three goals of "equity, adequacy, and efficiency" as the major orienting concepts for all study in American educational finance. Indeed, these three concepts now come as close to the Holy Trinity as one can probably get in secular matters.

We have followed a straightforward and simple outline for this study. We will first discuss our findings on matters of equity indicating our operational definitions and then our findings. This will be followed by a similar section on adequacy, again stating our measurement approaches followed by the findings. Since these reports are used outside of Illinois, and since the monographs are also used in school finance classes throughout Illinois, we have asked Professor Robert Arnold, a colleague here at the Center, to prepare a special appendix to this study which describes the current general purpose grant-in-aid system in Illinois. We owe some changes in this report to Stephen Barro who has suggested a number of improvements for Center studies.[4] However, the adequacy analysis should be regarded as very preliminary and we hope to expand this type of analysis in future publications of the MacArthur/Spencer study. Indeed, throughout this and other reports of the Center, reference is made to ongoing aspects of the five-year MacArthur/Spencer project at Illinois State University and the University of Illinois at Urbana/Champaign.

Finally, as is typical of all studies of the Center, we draw policy implications from the empirical work and make policy recommendations to the State Board of Education, the Governor's office, and the General Assembly. We are acutely aware that professors are elected by no constituency, do not face the accountability of the ballot box at stated intervals, and do not need to have high regard for political party discipline. Therefore, it is much easier to make the policy recommendations than it is to carry out those recommendations. However, for many years the Illinois School Problems Commission--and now the MacArthur/Spencer Foundations--have felt that others who are somewhat "outside" the political system needed to make those recommendations, and we have accordingly continued to discharge that responsibility to the best of our abilities.

II. Equity Measurements and Limitations

The standard research format puts the limitations on the measurements in the back of the study, but we have found that our clients normally want the limitations "up front," so we have followed that practice here. As in all past Center studies, this is an analysis of the equity aspects of the general state aid formula only. We have followed the lead of the California courts from the early 1970s and deliberately excluded all revenues intended for "targeted" populations of students, such as special education, vocational education, transportation, etc., etc. That is, all "categorical" monies have been excluded from the analysis. The assumption is thus made that the state has an obligation to reach equity goals prior to the application of funds intended for the special needs of special students. But there is one glaring exception to that in Illinois, e.g., the funds distributed on the basis of a "poverty impaction" factor in the general state aid formula, which will be discussed below.

Barro and others have noted that this results in a less than perfect analysis of the equity situation in the state.[5] This is, of course, correct. A complete analysis of the equity situation in the state would require companion analyses of all categorical grants, as well as an equity analysis of the money distributed in the last so-called "reform package," Public Act 84-126. There is some reason to believe, however, that the inclusion of categorical monies would not greatly change the results of the analysis. Categoricals, when taken in toto, are often a "wash," e.g., some categoricals help equity and some categoricals hurt equity, and the result is about neutral. Coombs found this to be the situation in the one attempt to ascertain the results of categorical funding in Illinois.[6] Even a cursory examination of the "reform package" also suggests the same possibility. Half the "reform" money is in the reading improvement program and the distribution formula for the reading improvement grant suggests it would have beneficial equity effects. However, the balance of the "reform" money is scattered in many, many programs whose overall equity effects are difficult to even guess. Clearly studies of the equity effects of state dollars outside the general aid formula are needed.

The funds used in this equity analysis are really revenue estimates and not audited expenditures. Specifically, they are the combination of general state aid, excluding all categoricals and federal funds, added to the estimate of revenues locally raised which is simply the operating tax rate times the assessed valuation. An equity analysis using audited expenditures would be helpful, although it is to be doubted if long-term trend results would be much different using audited expenditures rather than revenue estimates. In these, as in many other measurement matters, we are locked into whatever operational definitions we have used in the past. As many a researcher before

us has found when using longitudinal designs intended to reveal trends over many years, one had better be well satisfied with the initial measurements taken since any changes require changes through the entire time period under analysis. One can, of course, essentially "spot check" the results by using different measurements at two or more points in time. Note especially that the state funds and the local funds are combined. We feel the combination is necessary in order to get a good picture of wealth neutrality, which will be discussed below. However, the combination also prevents us from seeing the separate contribution to equity of locally raised revenues versus the contribution to equity of the general state aid. This "disaggregation" of the data through at least some points in the time series would be helpful. This was done in some earlier studies of the Center, and is contemplated again in future studies from the Center.

It should also be noted that this analysis is done in terms of estimated revenue per TWADA, Title I weighted average daily attendance, and Chapter I weighted average daily attendance (CWADA), which is the weighted student unit used for the distribution of general state aid in Illinois since 1973. This weighting has varied from year to year over the last 14 years. Essentially this means that in all the Center studies the state money that has flowed from the very important "poverty impaction" weighting in Illinois has been treated as general state aid and not as "targeted" money intended for a special student population. This is a controversial matter in Illinois. There is a school of thought in the state and in the General Assembly which believes that these dollars should be categorical or special purpose in nature. If that line of reasoning were followed, then the equity analysis should attempt to "back out" the funds flowing from the poverty impaction factor and ADA--rather than TWADA or CWADA--should be used in the equity analysis. The poverty impaction factor is extremely important in Illinois school finance and a separate study will be issued later by the Center on this topic. It is necessary here only to alert the reader to the fact that somewhat different results might be obtained by using both audited expenditures rather than revenue estimates and by using ADA rather than weighted student measurements. In long-term trend analysis, certainly in studies extending over a decade or more, we doubt that these measurement refinements are all that important, but they deserve to be noted.

III. Equity Operational Definitions

Equity operational definitions are of two types as in prior Center studies. The first type of definition is simply a disparity measurement. The intention is simply to see whether districts in Illinois are becoming more alike or more unalike with the passage of time. As Berne and Stiefel have pointed out, there are many many possible statistical techniques that can be used to measure whether a distribution of numbers is becoming more alike or unalike with the passage of time.[7] This approach is probably satisfactory only if all "targeted" monies have been withdrawn from the calculation. The basic assumption behind such a procedure is that large disparities between school districts in expenditure per pupil are not desirable given constitutional requirements of equal treatment under the law. That assumption may be valid no longer if special purpose money is included since it could easily be argued that a wider, not a smaller, variance in dollars was necessary if special money for special pupils was included in the calculation. Garms and others have pointed out the fallacy of the narrow variance assumption.[8] Nevertheless, measurements of disparity are simple to understand and remain a concern of both courts and legislatures. Usually the measures of disparity used are the simple range, e.g., the difference between the highest and lowest expenditure in the distribution

or some other two points such as the difference between the 90th centile and the 10th centile, or the interquartile range, etc. However, the measure most preferred in the literature seems to be the "coefficient of variation," which is the standard deviation divided by the mean and multiplied by 100. Since this is a "standardized" measurement, it is especially appropriate for comparisons over long periods of time where inflation effects are present or between states where levels of funding are quite different. Unfortunately, it is appropriate only if one thinks that the whole range of deviations from the mean are appropriate to include in the calculation. In effect, that assumes that one is as concerned with the deviations from the mean of the high expenditure districts as with the deviations from the mean of the low expenditure districts. If one is willing to "buy" these assumptions, then one looks for lower and lower values of the coefficient of variation with the passage of time. Unlike many situations in educational research, small values are preferred to large values in the statistical results.

However, not all researchers are willing to accept the assumptions behind the coefficient of variation. A number of older scholars, not the least of which was the late Paul Mort of Columbia University, believed that the only legitimate concern of the state was with the low-spending districts, and that the high-spending districts should be able to spend whatever they wanted to spend for education. To this group there was no need to look at the data for the high-spending districts since that was not a proper concern of the state. Professor Eugene McLoone, therefore, devised several indexes (which bear his name, the McLoone Indexes) to look at the bottom half of the school district expenditure distribution.[9] The one used in this study is based upon the total revenues below the median, divided by the total revenues below the median plus the amount of revenue required to bring all students to the level of the median revenue per pupil in the state. Thus the larger this fraction, the closer to the desired state of affairs. This constitutes the only equity index in this study in which large values are preferred to small values. Everywhere else the indexes should be read much like most medical indicators (blood pressure, for example) the smaller values are to be preferred.

The second type of equity operational definition is associational, rather than based upon the notion of dispersion. Therefore, it is bivariate, not univarite, since two variables are being related to one another. Again, this springs largely from a legal background. In Serrano v. Priest and in many other school finance constitutional challenges of the early 1970s, a doctrine was advanced which was known variously as "fiscal neutrality" and later as "wealth neutrality." There is extensive treatment of this in the Franklin study, and for the early original development the reader should be directed to Coons, Clune, and Sugarman.[10] Essentially, the courts held that expenditures should not be a function of local district wealth, other than the wealth of the state. Operational definitions of that concept can also be provided by quite a number of statistical measures of association, such as the Pearson product moment correlations, linear regression coefficients, and others.[11]

A problem connected with measurements of association is whether one wants each unit of analysis to have the same effect on the index of association or whether one wants units of different sizes to have different effects. In school finance terms, does one want Chicago to count the same as the smallest district in the state or should one weight the districts by the sizes of their student populations? Early in its school finance research, the Center at ISU modified an old tool in econometrics, the Gini coefficient, (sometimes known as the coefficient of concentration) to be used in the solution of this

problem. However, this is a bivariate use of the statistic and not the conventional univariate use of the statistic. This adaptation is sometimes referred to in the literature as the "wealth-weighted Gini" or the Hickrod-Chaudhari Gini.[12] Basically, what was done with this "wealth-weighted Gini" was to rank the school districts from low to high wealth. In the study reported here, wealth happened to be property valuation per pupil, but it could have been median family income or some combination of the two wealth specifications. This was done prior to the calculation of the Gini coefficient. This resulted in a situation where a zero value on the Gini Index indicated a perfect wealth neutrality; e.g., a situation in which local district wealth did not determine resources to finance K-12 education. Thus, we are provided with both a mathematical index and an associated graph--the Lorenz curve--for the negative test established by many courts in the early 1970s. Full details and computer programs for these calculations can be provided upon request to Professor Ramesh B. Chaudhari.[13] Appendix B provides a mathematical derivation of the wealth-weighted Gini. An improvement on this calculation has been advanced by Raymond Lows.[14] However, the Lows technique has not been applied to the full sixteen years of the time series reported here.

The more conventional approach to wealth neutrality is the linear least squares regression in which revenues or expenditures per pupil are regressed upon some measurement of wealth per pupil--usually property valuation per pupil or income per pupil. The variables are sometimes transformed into their logarithms and this transformation renders an "elasticity" to the coefficients. Berne has found that this simple elasticity is a reliable measurement of wealth neutrality.[15] It is the measurement of wealth neutrality used in this study. It should be stressed, however, that this is "simple" or "unconditional" wealth neutrality. If it is thought desirable to state a relationship between the wealth of a school district and the expenditures or revenues available in that district "net" of the effect of tax rate, or any other variable, then a "partial" elasticity must be calculated. It can be persuasively argued that through at least a portion of the sixteen years under analysis a "conditional" approach to wealth neutrality would be more appropriate. After all, the state did encourage districts to have unequal tax rates since they provided a "reward for effort" during a portion of the sixteen-year period. In fact, the Center did compute "partial" elasticities during a portion of this period.[16] However, in the author's opinion, over the whole sixteen years, the simple or "unconditional" relationship between wealth and revenues is the more appropriate measurement, since later in the time period the state phased out the "reward for effort" provision in the state aid formula. Again, over periods as long as sixteen years, it can be doubted whether the trends in "partial" elasticities would be any different than the trends in simple elasticities.

When using the regression approach to wealth neutrality, both a weighted and an unweighted regression approach was used. In the unweighted regression each school district has the same effect on the coefficient; e.g., Chicago has no more effect than the smallest district in the state. In the weighted regression, Chicago and the large cities virtually determine what happens to the coefficient. In a sense, the weighted regression transforms the analysis from the district as the unit of analysis to the student as the unit of analysis. Thus, the weighted regression approach is on par with the wealth-weighted Gini which was discussed earlier. In terms of practical politics, it may be necessary to continue to report results in both unweighted and weighted terms. In terms of votes in the General Assembly, both what happens to all school districts is still important as well as what happens to the largest school districts. It might well be that the lower house of

the General Assembly might be more interested in the weighted analysis and the upper house might be more interested in the unweighted analysis.

IV. Equity Results

The results of the equity monitoring are presented in seven tables and corresponding seven charts for the sixteen year period. The first two relate to the "permissible variance" notion. They are permissible in that the courts, the legislature, or some other groups, will permit some degree of disparity to remain in the system, but that a lower degree of disparity is preferable to a higher degree of disparity. Therefore, low values on the indexes are preferable to high values with the exception of the graph for the McLoone Index where the higher values are preferred. However, since there is no standard for what constitutes a "legitimate" variance, we tend to stress the other component of equity--the "wealth neutrality" component. There is also a sense in which the "permissible" variance operational definition is more of a definition of "equality of condition," a strong egalitarian concept, whereas "wealth neutrality" seems to speak more to "equality of opportunity." On the whole, one can generally get more political support in the United States for the later than for the former. In other countries this would not necessarily be true. Countries with a stronger social democratic tradition might well prefer the "permissible variance" notion to the "wealth neutrality" notion.[17]

Table 1 and Chart 1* show that disparity between school districts in local revenue plus general state aid decreased from 1973 through 1977 for elementary districts and for unit districts, and through 1978 for high school districts. The trend then reversed and disparity between school districts started to increase again through 1983 for elementary districts and unit districts and 1985 for high school districts. A second slight improvement period then ensued, but the last two years of the time series have shown large increases in disparity for elementary districts and unit districts and the last year of the time series was also detrimental to high school districts. By 1988, elementary districts were much more unequal than they were sixteen years previously and unit districts were somewhat more unequal than they were sixteen years previously. For high school districts the degree of inequality in support levels was only slightly better than it was sixteen years previously. These are quite dismal results from a traditional Serrano perspective. As in past studies, dual districts show much greater disparity than unit districts in Illinois. This is partially an ecological effect; that is, smaller geographic units tend always to show greater disparity in most populations. However, it is also a result of greater wealth disparities in elementary districts than in either high school or unit districts.

Table 2 and Chart 2 present the results for the McLoone index and are slightly more optimistic than the results portrayed in the first chart and table. Here, it should be remembered, the higher values are desired and these higher values indicate that the lower-spending school districts are closing ground on the median expenditure in the respective three populations--elementary, high school, and unit districts. This is an irregular time series, but the general trend over the sixteen year period is up, indicating progress in removing disparities in support levels at the lower end of the distribution. However, such good news is considerably dampened by the realization that the values in

*Tables, charts and maps are in Appendix A.

recent years are not as good as in some prior years. For example, for unit districts, 1988 is no better than 1986; for high school districts, 1988 is worse than 1979; for elementary districts, 1988 is considerably worse than 1987. If there is a silver lining here, it is a very, very thin lining indeed.

With Table 3 and Chart 3, the evidence relating to "wealth neutrality" begins. The authors think these five charts and tables would be of considerable interest should any court in Illinois eventually hold, as have other state courts, that expenditures or revenues may not be a function of local district wealth, e.g., the "negative rule" of the Serrano cases. By no means have all courts established such a rule of law, however, and the reader is again referred to professor Franklin's excellent survey of state constitutional challenges previously published by the Center.[18] Table 3 and Chart 3 use the Gini Index (the Hickrod-Chaudhari "wealth weighted" Gini) with property valuation per pupil as the specification of wealth. Again, as in the findings on permissible variance, there is a marked improvement at the beginning of the time series. For elementary districts this extended from 1973 through 1977; for high school districts, through 1978; for unit districts, through 1979. Indeed, for unit districts in Illinois in 1979, it could be said that the state was very near absolute wealth neutrality; e.g., even the strictest application of the wealth neutrality criterion could have been satisfied. Unfortunately, a long, slow deterioration then set in from those points in time until the present. Using the Gini Index as the measure of wealth neutrality, one would have to conclude that by 1988 in both elementary districts and in high school districts, support levels are more a function of local wealth now than they were sixteen years ago. With regard to unit districts, support levels are more a function of wealth now than they were fifteen years ago. Again, from a typical Serrano perspective, this is a very, very poor showing.

Tables 4 and 5 and Charts 4 and 5 use a different approach to wealth neutrality, but the overall results are quite similar. From a research point of view, it is reassuring to get similar trends, since it removes the always-lingering doubt that results may be artifacts of some quirk in the measuring process. Unfortunately, this reassurance is more than offset by the dark and dismal nature of the substantive results. Again, the early part of the time series shows considerable progress toward the goal of wealth neutrality in Illinois. But this is soon followed by the slow deterioration of the state. No matter whether the weighted or the unweighted regression approach is used, with respect to Illinois elementary districts, support levels in 1988 are more a function of local district wealth than they were sixteen years ago. This is almost true with regard to high school districts as well. Not all the ground has been lost with regard to unit districts, however. The values in 1988 are worse than they were in 1975 if unweighted regressions are used, and worse than they were in 1976 if weighted regressions are used.

Finally, Tables 6 and 7 and Charts 6 and 7 present the results when a different specification of wealth is used, income per TWADA or CWADA. There are some problems with this particular measurement in that for this sixteen year time period income is really available only from the 1970 census of population and housing and then again from the 1980 census of population and housing. However, again, the overall trend is so obvious that no technical measurement problems can account for the results shown. Using the unweighted approach, support levels are much more a function of local income than they were sixteen years ago, and strikingly so in the case of high school districts. This is also true of elementary districts and high school districts using the weighted approach. This is not true with unit districts using the weighted approach,

however, the state can surely take little solace in the fact that wealth neutrality in unit districts is no better now than it was in 1979.

In the last report in this monitoring series, The Decline and Fall of School Finance Reform in Illinois: A Study of the Politics of School Finance, 1973 to 1986, considerable space was devoted to advancing the notion of a possible "wave theory" for school finance. Essentially it was argued, with all requisite historical ruffles and flourishes, that school finance reform might follow the time-honored pattern of almost all reforms, e.g., reform followed by counter-reform or revolution followed by counter-revolution, if a broader historical frame of reference seemed appropriate. The equity indexes would then trace a pattern through time that might be modeled by a cubic function, a polynomial of the type: $Y = a - bX + cX^2 - dX^3$. Such speculation was occasioned by values in some of the time series between 1982 and 1986. Unfortunately, this appears to have been premature. It would have been reassuring to think that we were on the verge of another improvement in the time series in the late 1980s. However, it is now abundantly clear from the 1987 and 1988 values that there will be no second inflection point in the time series. A quadratic function, not a cubic function, will fit most of these time series relatively well. However, the early improvement followed by the long decline in some of the time series suggests that a quadratic in the form: $\log Y = a - b \log X + c \log X^2$ might provide a better fit to the data than a simple untransformed quadratic function. We did warn the reader then that the "wave" might be, "just an illusion in the mind of historically-oriented scholars." It appears that such was the case unless, of course, the "wave" manifests itself over much longer periods than the sixteen years under inspection here. Such might well be the case. In our last monitoring report, we suggested that the "wave" theory could not be verified or refuted short of 20 years of data and we see no reason to change that statement here. The pessimistic conclusion of some observers in Springfield that the state can never again reach the values it reached in 1976 or 1977 on these indexes is another deplorable possibility. But that is a counsel of despair and we refuse to adopt it, at least for the present.

V. Adequacy Measurements and Limitations

Professor Franklin's legal study, previously published in this series, makes it clear that no legal challenge mounted in Illinois could fail to take up the question of adequacy as well as the question of equity.[19] Professor Ward's conceptual study of adequacy, also published in this series, makes it clear that a number of difficult questions concerning adequacy must be answered, not the least of which is "adequacy for whom?" Still, a beginning must be made in the empirical study of adequacy, and we start here in the full knowledge that this must be expanded and developed in future studies of the Center.

One dimension of adequacy seems to be that of adequacy of the entire state system of K-12 education. When examined from this point of view, equity appears to relate to district-to-district comparisons, and adequacy appears to relate to the state at large. If adequacy is viewed as a mean or median support level and equity is viewed as a matter of dispersion around that mean or median, then it is clear that a state might move toward a goal of adequacy and yet move away from a goal of equity, or vice-versa.

In an earlier study in this series, a graphical statement of that type of disperate goal achievement was offered and that exercise is again reproduced here as Appendix C. For the purpose of this particular monograph, however, we will adopt the convention of regarding adequacy as a state-level phenomenon, rather than a district-level phenomenon. Nevertheless, as Ward points out, this is only one way of looking at the notion of adequacy.[20] It is also perfectly possible to look at adequacy from an individual district point of view, or from an individual student point of view.

If we think of adequacy as a state-wide phenomenon, then two types of comparisons come immediately to mind. One can compare where the state is now with where the state has been in the past; e.g., a time-series using the state as the unit of analysis. One can also compare Illinois with other states in the union. These are comparisons a legislator or a court would be apt to make. Essentially they ask, "How well are we doing relative to the past and relative to other states?" But the "how well are we doing?" type of question quickly leads to: "How well are we doing relative to what kind of measurements?" When states are compared with where they have been in the past, or where they are relative to other states, the comparisons are often of two kinds: (a) support levels, and (b) fiscal effort. If the support levels are the state average operating expenditures per pupil, then adequacy can be addressed in terms of the level of goods and services being offered to some hypothetical "average" student in the state. This may help the court and the legislature in determining whether constitutional mandates, either explicit or implicit, relative to provision of a "basic" education are being met. The legislature, however, often asks a different question which is, "How are we doing relative to the resources at hand?" This is not a question of adequate provision per se, but of the fiscal effort that is being exerted to provide whatever goods and services are being provided. It relates to the adequacy question in that if a state is found to be inadequately providing for K-12 education, it is immediately important to know whether that inadequacy is in spite of strong efforts to provide the funds or whether that inadequacy is a product of lack of will to provide for education when the resources to do the job are indeed present. If the state is straining every seam to do the job, but cannot get it done, that is certainly a different situation than if a state is not making adequate provision due to inadequate effort. Thus, we explored "fiscal effort" in this monograph as a part of the "adequacy" goal.

There are several technical problems relative to the measurement of adequacy that we have not yet solved to our satisfaction, and they constitute important limitations on the study. By far the most important of these has to do with two different kinds of cost-of-living adjustments. The first kind is fairly straightforward. A time series of operating expenditures per pupil for Illinois needs to be corrected for the effects of inflation so that one can look at "adequacy" in constant dollars rather than in current dollars. Ideally, one should have a specialized cost-of-education index to deflate current dollars, but a reasonable first showing can be made with the conventional consumers price index, and that is what we have used in this study. Later in the series we intend to explore the creation of a separate cost-of-education index.

The second cost-of-living adjustment is of a geographic variety rather than a "through time" variety. A given level of funding will buy different bundles of goods and services in Alaska or Mississippi as opposed to Illinois. The MacArthur/Spencer project has commissioned a study on this aspect of K-12 funding with Professor Walter McMahon of the University of Illinois and the comparisons of Illinois with other states will be

recomputed when the interstate index which Professor McMahon is working on is completed. In the meantime, it will be necessary to proceed here with comparisons of Illinois with other states in terms of current dollars, rather than in geographically adjusted cost-of-living dollars.

Unfortunately, looking at where we have been or where we are going with regard to constant dollar expenditure per pupil does not take one too far toward an exploration of adequacy. If the constant dollar expenditures per pupil drop with the passage of time, then a plausible case could be made that since the state is not even keeping up with inflation, funding can be deemed "inadequate." However, if the line traced on the graph is perfectly flat or has only limited elevation, it is difficult to draw the conclusion that funding is "adequate" in any absolute sense. A flat or slowly rising line may be evidence that funding has kept pace with inflation, but if the funding level was "inadequate" at the beginning of the time period, it will still be "inadequate" at the end of the time period. The same thing can be said of interstate comparisons. If the whole population is "adequate" or "inadequate," then one's position in such a population provides little information on adequacy. It is much like having a cholesterol level of 200. That's not bad for the U.S. population, but the entire U.S. population may be too high. What is missing here is some "external" or "absolute" standard for adequacy or inadequacy. There have been attempts to create such an external criterion by "panels of experts" and by using data at the national level, but nothing as yet has widespread acceptance.[21] With that in mind, we shall proceed to a description of the less-than-perfect indicators of adequacy and effort that we have used in this study.

VI. Adequacy Operational Definitions

As a preliminary exploration of adequacy in Illinois, we have used the operating expenditure per pupil as reported by the Illinois State Board of Education. This has been deflated by the consumer price index using the 1967 dollar base. Our initial exploration of fiscal effort entailed the construction of a similar time series, 1972 through 1985, for per capita income in Illinois as reported by the Survey of Current Business. To get an effort index for each year we then divided the operating expenditure per pupil by the per capita income. The two time series thus contrast the Illinois experience through time on both services provided and fiscal effort exerted for those services.

The comparison of Illinois with other states was in terms of per capita school expenditures as provided by the Statistical Abstracts of the U.S., Bureau of the Census. Rank orders of the states were taken for 1975, 1980, and 1985 and the change in the rank order of Illinois duly noted. These data were also plotted on a map of the United States in such a way so as to highlight the change in the Illinois position relative to other states.

Effort through time can also be measured by means of a statistic known as an "income elasticity of expenditure for education." This income elasticity is simply a percentage change in expenditure per pupil divided by a percentage change in per capita income. The literature in school finance suggests that this income elasticity of expenditure for K-12 education should be close to 1.00.[22] That is, for every one percent change in income per capita in a state an identical one percent change in expenditure should be expected. The operation of some state constitutions--Michigan, for example--actually restricts increases in state spending to this so-called "unit elasticity"; that is,

state spending in Michigan can increase no faster than increases in the wealth of the state. Similar constitutional changes have been recommended for Illinois. Expenditures which increase faster than income are said to be "highly elastic" and increases in expenditures which increase at a rate less than income are said to be relatively inelastic. The authors consider the statistic to be an especially good measurement of fiscal effort through time if it is applied over periods as long as a decade. While the statistic is used here for the entire state it can also be used for individual school districts. Once these elasticities have been computed for all states, rank orders of the statistic can be explored and cartographic approaches can also be used.

At least two methods of computation are available for the income elasticity of expenditure for education. The first method is simply to take two points in time for both expenditure and income and calculate the percentage change upon the basis of these two points in time. A variation of this calculation takes two points at the beginning of the time series and two points at the end of the time series, and then uses the average of these two points in the calculation. This avoids the possibility of a deviant measurement at either end of the time series. A more accurate method involves regressing the expenditures per pupil of a state on the per capita income of a state using all the measurements in the time series. When this is done both measurements are transformed into their logarithms and the regression coefficient of the least squares linear regression is taken as the elasticity. Both calculation methods were used in this study. They do yield slightly different estimates of income elasticity of expenditure for education.

VII. Adequacy Results

Table 8 and Charts 8-A, 8-B, and 8-C, show Illinois operating expenditure per pupil 1973 though 1986 in current dollars and 1973 through 1985 in constant dollars. In current dollars there has, of course, been a striking increase: from $1,519 to $5,149 for high school districts; from $1,255 to $3,655 for unit districts, and from $1,027 to $3,522 for elementary districts. Note that the increase in dollars for the high school districts exceeds the increase in dollars for the unit and elementary districts. The trends in current dollars are exponential, e.g., the increase has been more marked since 1979 than prior to 1979.

Current dollars are what the legislature must first focus upon since state budgets are built in term of current dollars, not constant dollars. However, when the consumer price index is applied and the data is shown in terms of constant 1967 dollars, there is a marked change in the trend lines. In terms of constant dollars the increase is much less pronounced: from $1,141 to $1,477 for high school districts, from $943 to $1,050 for unit districts and from $772 to $1,005 for elementary districts. Much of the exponential nature of the trends disappears and the trend is essential flat as can be seen in Charts 8-A, 8-B, and 8-C. However, there is some upward slope to the line so that IF the initial funding was adequate in 1973, then it must be concluded that purely in terms of keeping up with inflation, the present funding is also adequate. This is, however, a very modest definition of adequacy.

At what fiscal effort has this keeping up with inflation been achieved? To answer that question we need an indication of the change in per capita income of the state. These data are shown in Table 9, and in Charts 9-A and 9-B. Again, the increase in current dollars is very good. Also, there is a slight exponent trend to the data with the

increase after 1979 being greater than the increase prior to 1979. The nearly three-fold increase in per capita income in Illinois, from $5,131 to $14,738, is probably the most quoted statistic in the Governor's office. However, when the picture is viewed through the lens of constant dollars, it is not nearly so rosy--as can be seen in charts 9-A and 9-B. The increase in per capita income over a fourteen-year period is very modest: $4,100 to $4,566.

Fiscal effort is defined in this study as the ratio of expenditure to income. Table 10 and Chart 10 show the results in terms of both constant operating expenditures per pupil and in terms of per capita tuition charge. The use of the latter figure has some advantages in that both federal and state categoricals are excluded from this sum. The time-series is irregular, but over the whole range there has been a very slight increase in fiscal effort: from .191 to .208. However, the best showing on fiscal effort was in 1983, the last two years in the time series showing a slight decline in fiscal effort. From Tables 8, 9 and 10 and their related charts, we conclude that Illinois has maintained adequacy, at least in terms of keeping ahead of inflation, at the price of a slight increase in fiscal effort. Not a bad showing, at least compared to the equity indexes previously discussed.

However, when Illinois is compared to other states, the adequacy situation is not nearly so favorable. Table 11 and Maps 11-A, 11-B, and 11-C compare Illinois with the other states. The ranking is in terms of per capita school expenditures in constant dollars. In 1975, Illinois was fifteenth from the top of the rank order; in 1980 it fell to twenty-eighth in the rank order; in 1985 it had dropped to thirty-fourth in the rank order. This downward plunge in funding for K-12 education can be made more dramatic by cartographic techniques. Maps 11-A, 11-B. and 11-C are constructed so that the states in black have per capita school expenditures greater than Illinois. As can be seen the maps grow blacker with each passing five years. It should be remembered, however, that these data have been corrected for inflation only through time, and they do not show corrections for geographic cost-of-living, which cannot take place until Professor McMahon's project for the MacArthur/Spencer project is completed. Very likely the Illinois plunge in the rank order will not be so dramatic when the data is corrected for interstate differences in cost-of-living, but it is unlikely that it will disappear entirely.

If Illinois has not been doing very well relative to other states, is this the result of low fiscal effort? To answer this question we need the results of the income elasticity of expenditure analysis. This is presented in Table 12 and Map 12. Table 12 shows the computation of the income elasticity of expenditure for K-12 education when computed by the "two point" method. Actually, it is four points since two points were averaged at the beginning and at the end of the time series. By this method of calculation, when computed over a full decade, 1975 to 1985, the figure for the United States does come close to unit elasticity: 0.91. However, Illinois is much below that unit elasticity, with 0.614; not nearly as good a showing as neighboring Indiana at .992. The western states as a whole do better than other regions of the country. In the group over I.00, that is with high elasticity, we find Utah, New Mexico, Kansas, Alaska, Texas, Oklahoma, North Dakota, Montana and Wyoming. However, two other western states, California and Arizona, show the lowest fiscal effort in the country. The reader should keep in mind that elasticity is a ratio that is affected by changes in both expenditure and by changes in income. Therefore, Table 12 provides the data on these two elements. Illinois' thirty-eighth position on fiscal effort can again be dramatized by the kind of map, which places states greater than Illinois in black and this is done on Map 12.

Table 13 and Map 13 show the results of the calculations when a more precise method of computation is used, e.g. the regression of log expenditures on log income.

VIII. Conclusions and Policy Implications

What has been learned here? We have learned that Illinois is not equitably funded with regard to K-12 education and that the situation relative to equity is growing progressively worse. In fact, it is with considerable self-control that we desist from drenching the final pages with absolutely purple prose. The situation is awful, perfectly awful. The slight hope that seemed to be present in the last publication of this monitoring series is now dashed. The figures for the last two years in the time series make it plain that, unless a very large amount of new state funds are put into the poorer districts of the state, we can never get back to the more equitable funding situation of the early 1970s. Is the time right for a constitutional challenge to the state's K-12 funding system? Yes, certainly it is right from the point of view of the evidence. However, any party thinking of bringing such a suit should consult in detail the companion study of Professor Franklin. The facts suggest that the time is right, but legal precedents indicate that such a suit might have hard sledding.

The picture is a little less grim with regard to adequacy and this might make a constitutional challenge more difficult, since such a challenge would have the burden of showing that the Illinois K-12 funding system was not only not equitable, but also inadequate. But the picture is surely no bed of roses here. While Illinois appears to have kept pace with inflation, its position relative to other states in provision of K-12 services has fallen and its fiscal effort exerted for K-12 services is nothing to write home about.

The difference in the findings of adequacy v. equity is something that needs further exploration. We suspect, but can not concretely demonstrate, that many states may have made gains on adequacy in the last decade and a half, while losing ground on equity. Single case studies cannot prove such a matter, but they can serve to pose interesting hypotheses.

What is the practical solution? We need to find something in the nature of 400 million new dollars for education and we need to put it almost all into the general aid formula--not into categorical aid, and not into new "reform" initiatives. There is no doubt but that both categoricals and reforms are laudable in and of themselves, but the situation relative to equity and adequacy is addressed by general state aid, not by "targeted" money. This may well be complicated by the need for new funds in post-secondary education as well as K-12 education. Studies by our companion Center for Higher Education at ISU suggest that the funding situation in higher education is just as grim as the funding situation reported here for K-12 education.[23]

Where can Illinois find funds of this magnitude? Everyone knows the answer to that. They can be found only by raising the rate on the personal income tax. No amount of doctoring with excise taxes or lotteries or any other quick-fixes will suffice. The precise degree of increase in the individual income tax will depend upon the needs of the other public services, including the needs of higher education. In fact, if this study serves no other purpose than to show the need for such a tax increase in Illinois, then it will have served a very worthwhile purpose. Any group, any individual legislator, and

any political party that claims that education does not "need" the money will have to refute the data in this study and in similar studies conducted for higher education.

Now if the funds are forthcoming in the magnitude indicated, then the public also has the right to know that these funds are being used efficiently. This particular monograph was directed at the notions of equity and adequacy and not at the matter of economic efficiency. However, as we have indicated in prior studies in this series, economic efficiency is not a subject that can be ignored by educators. We have argued elsewhere that equity and adequacy have a priority over efficiency, but we are by no means inclined to relegate efficiency to a back burner.[24] Accordingly, in 1988, the Center will launch a major investigation into the efficiency goal . In the meantime, we assure the taxpayer that there is a need for more funds for K-12 education, and that need can be documented in terms of the goals of equity and adequacy.

What happens if the need is not met? Two things happen. First with regard to adequacy, Illinois will slowly slip into a backwater relative to other states. Industries, including foreign investors, will not choose to locate in a state that has shown that it does not have the will to invest in education. In fact, it is little short of amazing that foreign investors have shown as much interest as they have in Illinois. They must not be reading the studies published by this Center! Other states have much better investment records than Illinois does relative to K-12 education. Without major outlays in education, the very laudable attempts of both political parties to stimulate economic growth in this state will fall flatter than a dead mackerel. Second, at some point, the poorer districts of this state will wake up to the fact that they have "been had." Since this apparently has been going on since about 1976 or 1977, the school boards and the school superintendents in the poorer districts of Illinois do not read the Center studies either! Maybe we are not getting the message across. Short of renting an airplane and trailing a banner that reads: WE ARE DOING A LOUSY JOB OF SCHOOL FINANCE IN ILLINOIS, we cannot think of much more that an academically-based research center can do.

The Honorable Edward Heath, former Prime Minister of Great Britain, recently had to oppose his own political party, the Conservative and Unionist Party of Great Britain, on an education bill that the Thatcher government brought to Parliament. That took a lot of courage, and he was roundly jeered from the benches of his own party. When interviewed afterward by the BBC correspondent, the former Prime Minister said, "When your party is wrong, it's wrong, and you have the responsibility to do something about it." Maybe we need some Edward Heaths in the Illinois General Assembly, but as JFK pointed out in Profiles in Courage, the price of political courage comes very, very high. Academics only provide the artillery, the legislature is the infantry, and the hand-to-hand combat needed to raise taxes is no picnic.

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[12]Prior usage of the Gini coefficient can be found in: Stephen Michelson, "The Political Economy of Public School Finance," in Carnoy, Schooling in a Corporate Society (McKay Publishing, 1972); Norton W. Grubb and Stephen Michelson, States and Schools (Heath, 1974); Arthur J. Alexander, Inequality in California School Finance (Santa Monica, CA: Rand, 1975); Russell S. Harrison, Equality in Public School Finance (Lexington Books, 1976); also in all reports of the Center for the Study of Educational Finance at Illinois State University since 1973.

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[18]Franklin, David L. Constitutionality of K-12.

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[22]For an early discussion of the notion of elasticities, see Charles S. Benson, The Economics of Education. (Boston, MA: Houghton Mifflin, 1961).

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APPENDIX A

Table 1

PERMISSIBLE VARIANCE
COEFFICIENT OF VARIATION

Year	Districts Elementary	High School	Unit
1972-73	29.44	28.19	14.70
1973-74	26.97	25.33	13.44
1974-75	28.23	24.26	13.41
1975-76	28.27	21.12	13.29
1976-77	26.37	18.53	12.89
1977-78	28.75	17.70	13.72
1978-79	30.22	18.23	15.71
1979-80	29.24	20.94	13.87
1980-81	33.25	24.22	16.25
1981-82	35.51	24.22	14.46
1982-83	35.71	25.02	16.69
1983-84	34.68	26.10	16.53
1984-85	34.72	26.38	15.80
1985-86	34.70	24.36	13.90
1986-87	37.27	24.20	14.11
1987-88	42.43	27.00	16.06

Chart 1

PERMISSIBLE VARIANCE
COEFFICIENT OF VARIATION

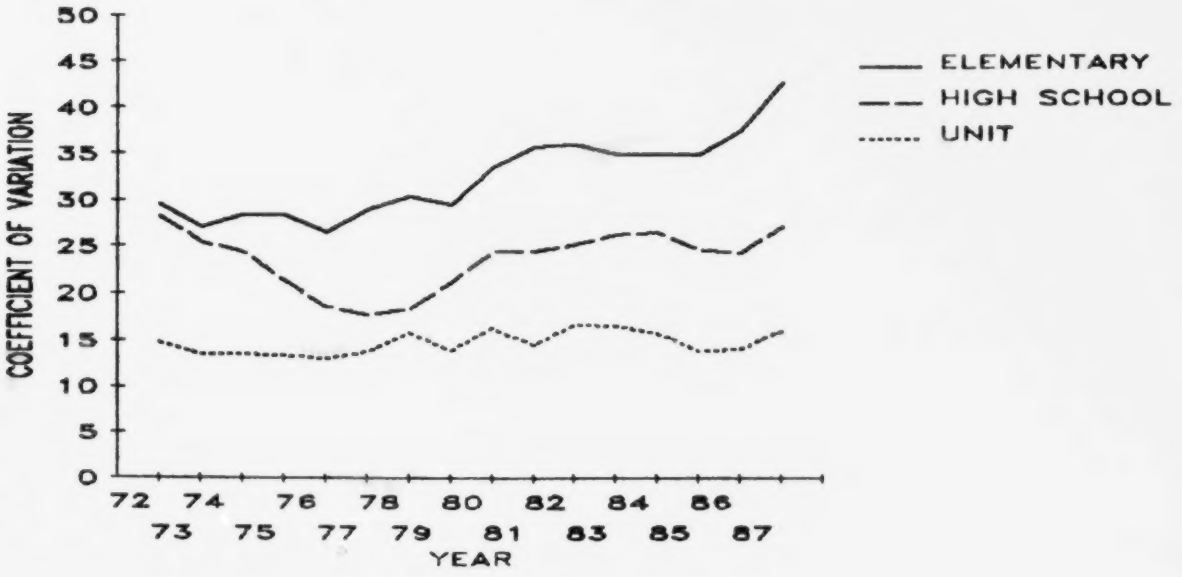


Table 2

PERMISSIBLE VARIANCE CRITERION
McLOONE INDEX

Year	Unit		High School		Elementary	
	Index	Median $	Index	Median $	Index	Median $
1972-73	0.9030	798	0.8281	928	0.8915	764
1973-74	0.9191	862	0.8494	996	0.8767	851
1974-75	0.9216	910	0.8590	1,099	0.8469	944
1975-76	0.9373	939	0.8703	1,159	0.8833	1,011
1976-77	0.9294	1,049	0.9026	1,271	0.8862	1,117
1977-78	0.8966	1,134	0.9036	1,388	0.8853	1,208
1978-79	0.8916	1,220	0.9061	1,566	0.8832	1,329
1979-80	0.9078	1,343	0.8855	1,774	0.9186	1,423
1980-81	0.9205	1,465	0.8628	2,031	0.8905	1,643
1981-82	0.9378	1,572	0.8914	2,085	0.9272	1,684
1982-83	0.9369	1,627	0.8801	2,148	0.9146	1,755
1983-84	0.9362	1,733	0.8642	2,317	0.9238	1,865
1984-85	0.9408	1,836	0.8649	2,475	0.9211	1,977
1985-86	0.9559	2,015	0.8878	2,598	0.9263	2,096
1986-87	0.9257	2,243	0.8734	2,806	0.9493	2,150
1987-88	0.9523	2,141	0.8830	2,853	0.9167	2,269

Chart 2

PERMISSIBLE VARIANCE CRITERION
McLOONE INDEX

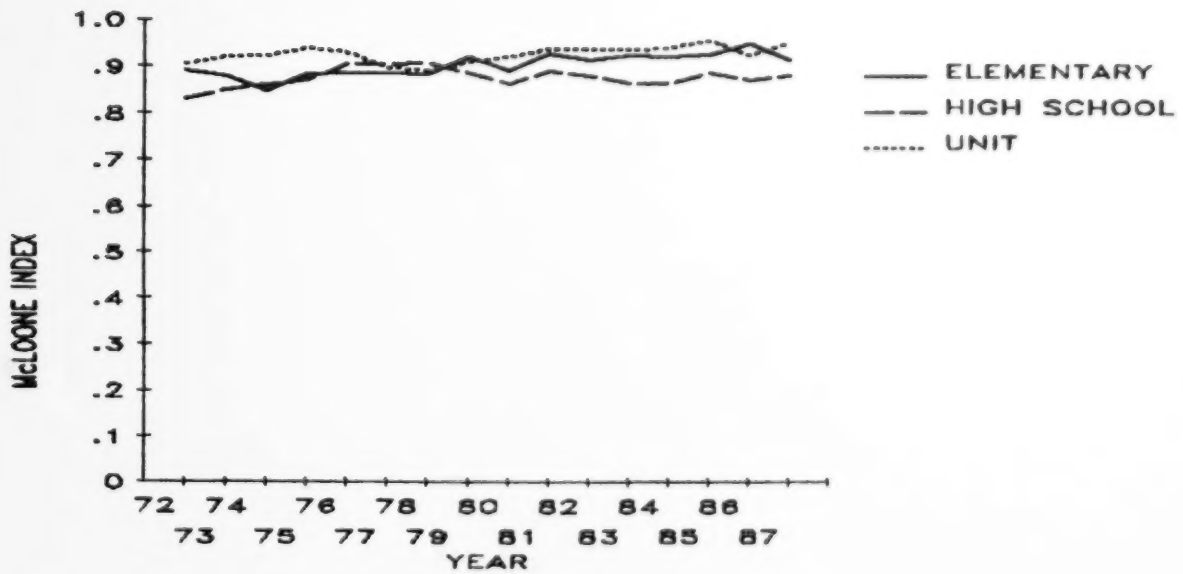


Table 3

WEALTH NEUTRALITY: GINI INDEX
USING PROPERTY VALUATION PER TWADA

Year	Districts Elementary	High School	Unit
1972-73	0.0995	0.0961	0.0345
1973-74	0.0848	0.0844	0.0265
1974-75	0.0727	0.0756	0.0143
1975-76	0.0604	0.0623	0.0018
1976-77	0.0419	0.0422	0.0055*
1977-78	0.0528	0.0399	0.0020*
1978-79	0.0691	0.0416	0.0015*
1979-80	0.0740	0.0441	0.0066*
1980-81	0.0845	0.0480	0.0123
1981-82	0.0869	0.0433	0.0133
1982-83	0.1036	0.0664	0.0164
1983-84	0.1046	0.0703	0.0182
1984-85	0.1149	0.0832	0.0094
1985-86	0.1122	0.0831	0.0185
1986-87	0.1177	0.0928	0.0249
1987-88	0.1355	0.1100	0.0299

*Lorenz Curve crosses the line. Gini coefficient is not interpretable.

Chart 3

WEALTH NEUTRALITY: GINI INDEX
USING PROPERTY VALUATION PER TWADA

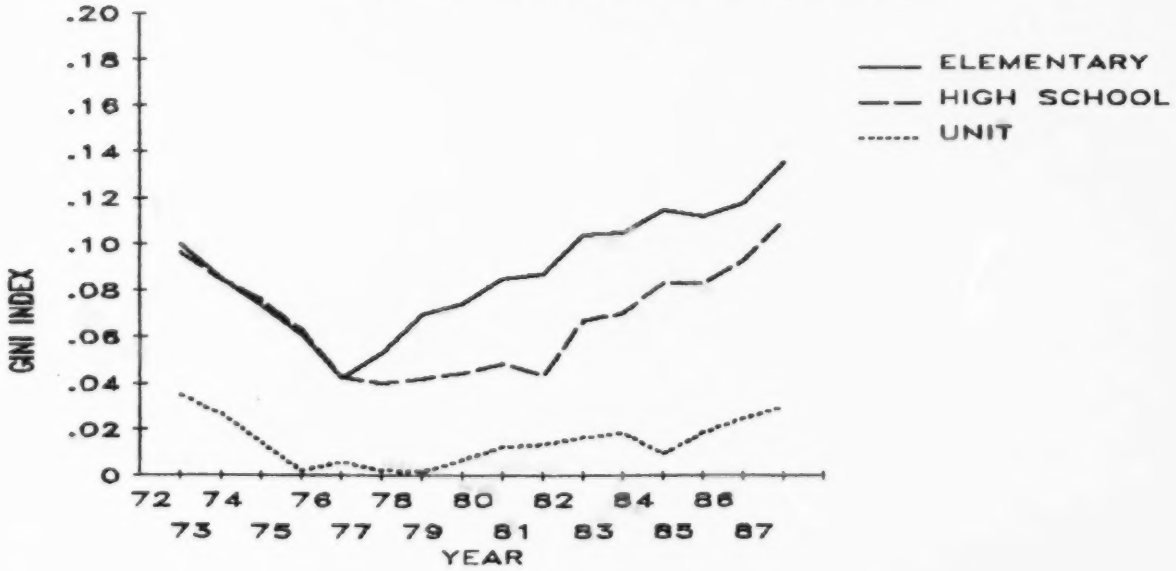


Table 4

WEALTH NEUTRALITY CRITERION
UNWEIGHTED REGRESSION APPROACH
USING PROPERTY VALUATION PER TWADA

Year	Districts Elementary	High School	Unit
1972-73	0.27679	0.44843	0.21691
1973-74	0.24592	0.39949	0.17640
1974-75	0.23293	0.34834	0.13493
1975-76	0.22803	0.28896	0.10890
1976-77	0.18782	0.22161	0.03544
1977-78	0.23210	0.20868	0.07204
1978-79	0.25807	0.23793	0.11687
1979-80	0.26137	0.27476	0.12105
1980-81	0.29831	0.31092	0.15603
1981-82	0.30890	0.30534	0.14326
1982-83	0.32421	0.33405	0.17602
1983-84	0.30655	0.30349	0.15595
1984-85	0.31947	0.33519	0.15796
1985-86	0.31638	0.33369	0.15192
1986-87	0.32622	0.33324	0.15184
1987-88	0.35571	0.35957	0.16015

Chart 4

WEALTH NEUTRALITY CRITERION
UNWEIGHTED REGRESSION APPROACH
USING PROPERTY VALUATION PER TWADA

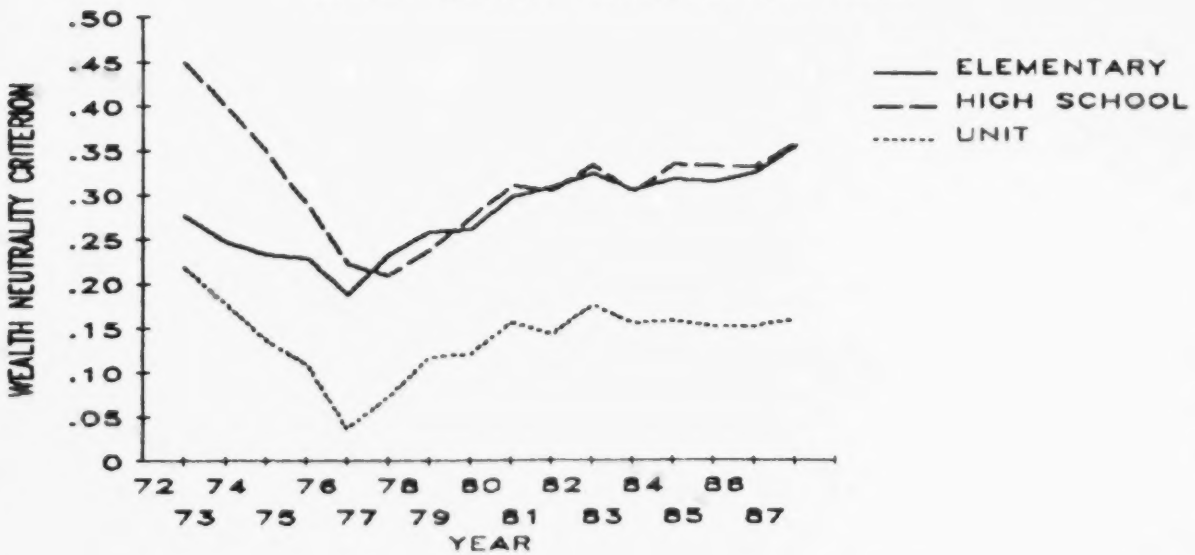


Table 5

WEALTH NEUTRALITY CRITERION
WEIGHTED REGRESSION
USING PROPERTY VALUATION PER TWADA

Year	Districts		
	Elementary	High School	Unit
1972-73	0.2741	0.4679	0.2502
1973-74	0.2797	0.4488	0.1988
1974-75	0.2345	0.3780	0.1490
1975-76	0.2117	0.3115	0.0778
1976-77	0.1600	0.2494	0.0199
1977-78	0.1923	0.2254	0.0317
1978-79	0.2316	0.2336	0.0241
1979-80	0.2447	0.2566	0.0506
1980-81	0.2511	0.2385	0.0705
1981-82	0.2795	0.2712	0.0709
1982-83	0.3003	0.3446	0.0797
1983-84	0.2855	0.3258	0.0469
1984-85	0.3042	0.3773	0.0374
1985-86	0.3009	0.3905	0.0696
1986-87	0.3062	0.4002	0.0850
1987-88	0.3383	0.4406	0.0918

Chart 5

WEALTH NEUTRALITY CRITERION
WEIGHTED REGRESSION
USING PROPERTY VALUATION PER TWADA

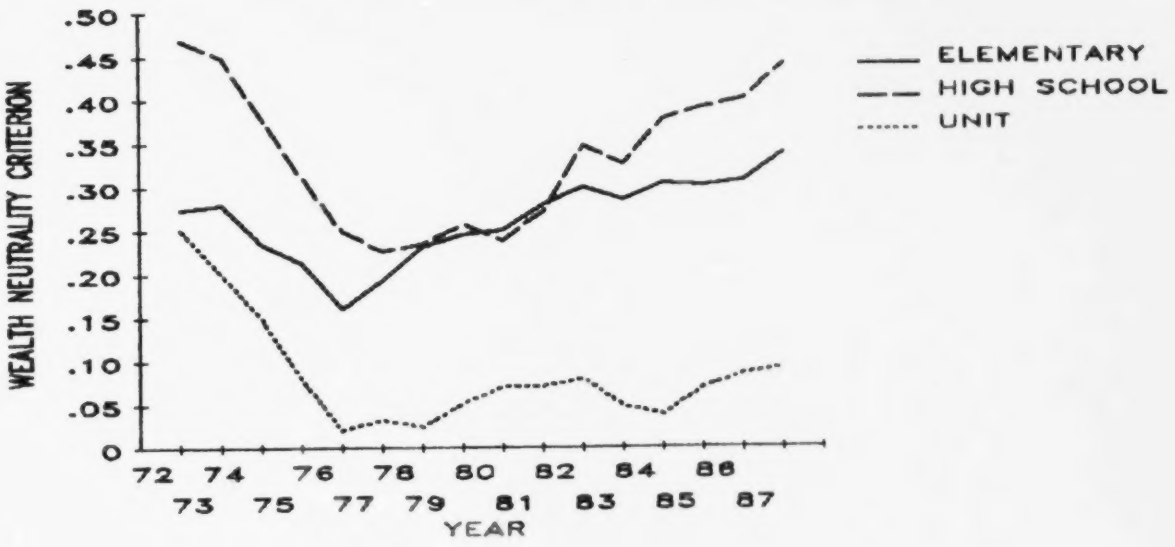


Table 6

WEALTH NEUTRALITY
UNWEIGHTED REGRESSION APPROACH
USING DISTRICT INCOME PER TWADA

Year	Districts Elementary	High School	Unit
1972-73	0.27738	0.22835	0.12495
1973-74	0.23795	0.22514	0.19580
1974-75	0.25418	0.19112	0.18470
1975-76	0.25218	0.17709	0.13288
1976-77	0.20221	0.11094	0.10917
1977-78	0.19729	0.10251	0.11673
1978-79	0.21992	0.14970	0.14825
1979-80	0.20892	0.12671	0.11994
1980-81	0.20000	0.14780	0.11361
1981-82	0.26240	0.24520	0.14710
1982-83	0.29202	0.29204	0.15970
1983-84	0.30155	0.33647	0.14910
1984-85	0.32903	0.37084	0.13821
1985-86	0.32362	0.37974	0.14257
1986-87	0.32034	0.38197	0.14183
1987-88	0.35835	0.49942	0.13249

Note: The wealth variable in this table was derived from 1970 census data and held constant throughout the time period 1973-1981. Income data from the 1980 census was introduced with the year 1981-82 and was used from that point on.

Chart 6

WEALTH NEUTRALITY
UNWEIGHTED REGRESSION APPROACH
USING DISTRICT INCOME PER TWADA

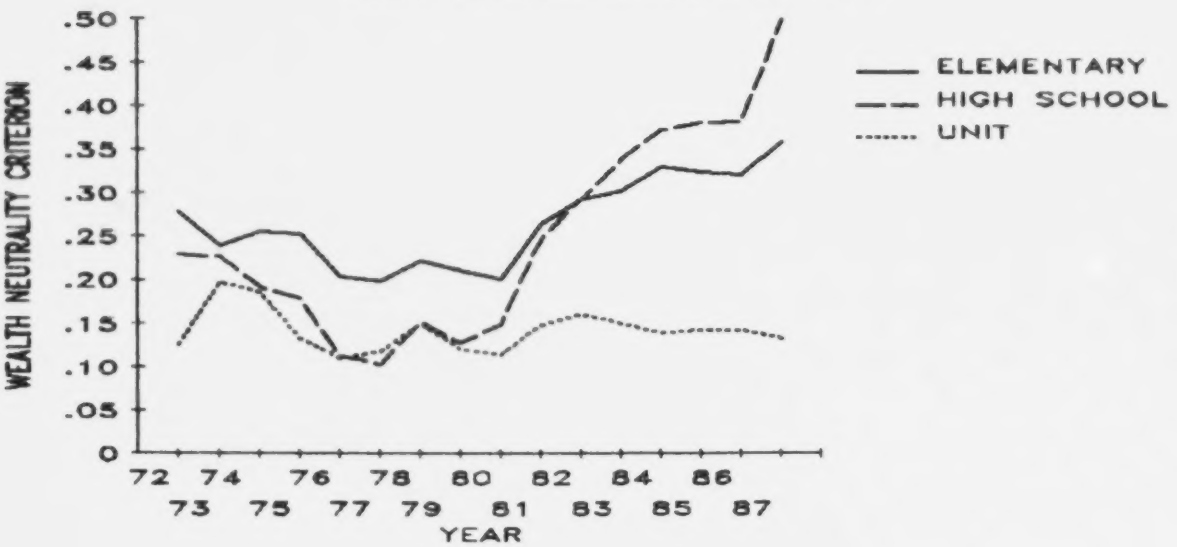


Table 7

WEALTH NEUTRALITY
WEIGHTED REGRESSION COEFFICIENTS
USING DISTRICT INCOME PER TWADA

Year	Districts Elementary	High School	Unit
1972-73	0.31564	0.54480	0.27477
1973-74	0.29524	0.51499	0.16953
1974-75	0.24761	0.40023	0.21365
1975-76	0.23509	0.33092	0.21715
1976-77	0.15724	0.20838	0.15875
1977-78	0.14539	0.17587	0.12030
1978-79	0.17400	0.22567	0.09753
1979-80	0.16583	0.23705	0.06409
1980-81	0.15694	0.23855	0.04047
1981-82	0.27126	0.48087	0.08821
1982-83	0.30257	0.53991	0.07846
1983-84	0.31890	0.57250	0.05553
1984-85	0.34780	0.58510	0.05912
1985-86	0.33750	0.55353	0.07918
1986-87	0.32873	0.54570	0.09963
1987-88	0.37397	0.62137	0.09845

Note: The wealth variable in this table was derived from 1970 census data and held constant throughout the time period, 1973-1981. Income data from the 1980 census was introduced with the year 1981-82 and was used from that point on.

Chart 7

WEALTH NEUTRALITY
WEIGHTED REGRESSION COEFFICIENTS
USING DISTRICT INCOME PER TWADA

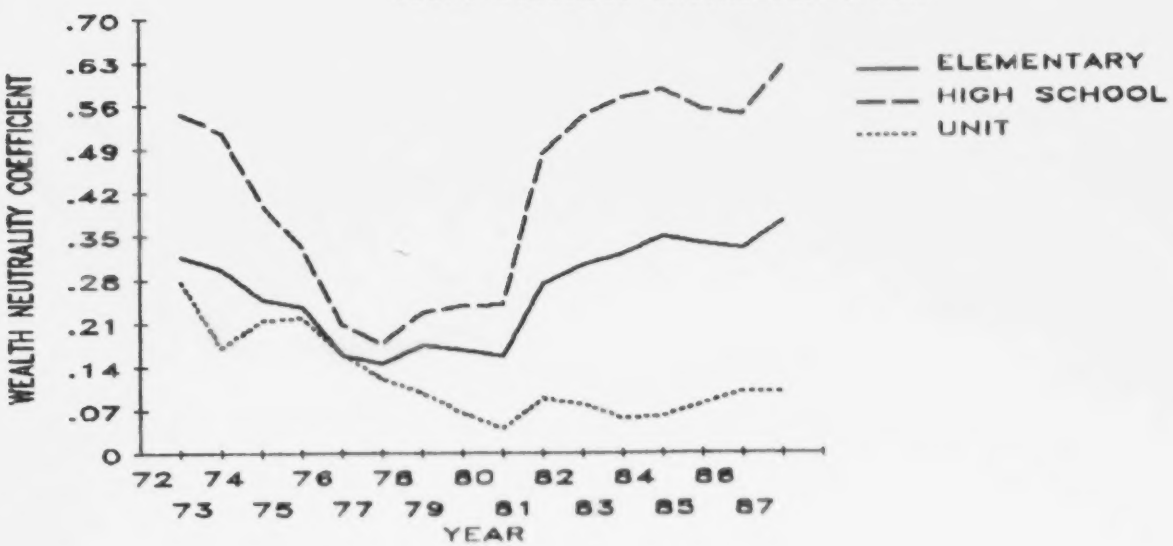


Table 8

OPERATING EXPENDITURES PER PUPIL
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS

Year	CPI 1967 1.0	Districts							
		All Districts		Elementary		High School		Unit	
		Current$	Constant$	Current$	Constant$	Current$	Constant$	Current$	Constant$
1972-73	0.751	1228.200	922.378	1027.450	771.615	1519.190	1140.912	1255.250	942.693
1973-74	0.677	1359.560	920.422	1149.190	778.002	1633.910	1106.157	1390.840	941.599
1974-75	0.620	1560.930	967.777	1313.520	814.382	1815.740	1125.759	1608.070	997.003
1975-76	0.587	1684.450	988.772	1463.430	859.033	1993.350	1170.096	1707.060	1002.044
1976-77	0.551	1777.510	979.408	1567.690	863.797	2150.050	1184.678	1780.760	981.199
1977-78	0.512	1948.250	997.504	1719.340	880.302	2374.520	1215.754	1946.440	996.577
1978-79	0.460	2174.050	1000.063	1896.130	872.220	2648.710	1218.407	2179.550	1002.593
1979-80	0.405	2419.650	979.958	2120.410	858.766	2963.650	1200.278	2418.380	979.444
1980-81	0.367	2654.370	974.154	2375.220	871.706	3385.790	1242.585	2608.890	957.463
1981-82	0.346	2904.240	1004.867	2593.470	897.341	3801.090	1315.177	2840.660	982.868
1982-83	0.335	3110.490	1042.014	2786.360	933.431	4178.540	1399.811	3021.010	1012.038
1983-84	0.321	3295.270	1057.782	2994.250	961.154	4458.930	1431.317	3180.600	1020.973
1984-85	0.310	3525.760	1092.986	3243.310	1005.426	4766.100	1477.491	3387.570	1050.147
1985-86		3809.260		3521.630		5149.270		3654.540	

Source: State, Local, and Federal Financing for Illinois Public Schools, 1982-83, 1983-84, 1985-86, 1986-87.

CHART 8A:
HIGH SCHOOL DISTRICT OPERATING EXPENDITURE PER PUPIL
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS
SCHOOL YEARS 1972–1973 THROUGH 1984–1985

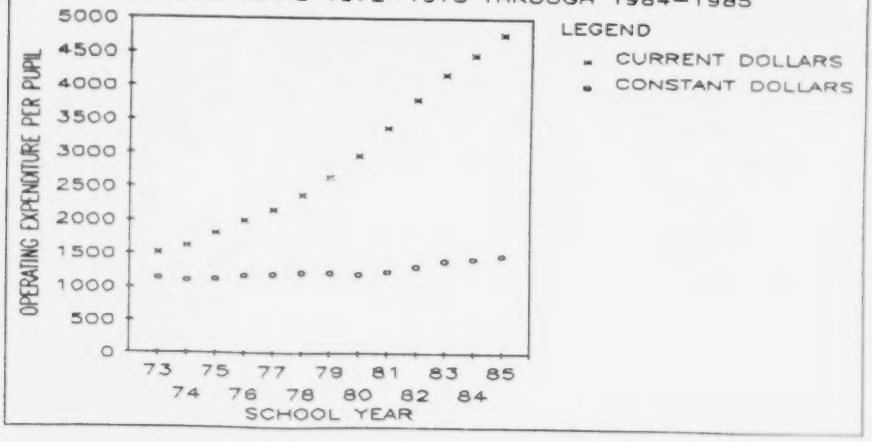


CHART 8B
ELEMENTARY DISTRICT OPERATING EXPENDITURE PER PUPIL
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS
SCHOOL YEARS 1972–1973 THROUGH 1984–1985

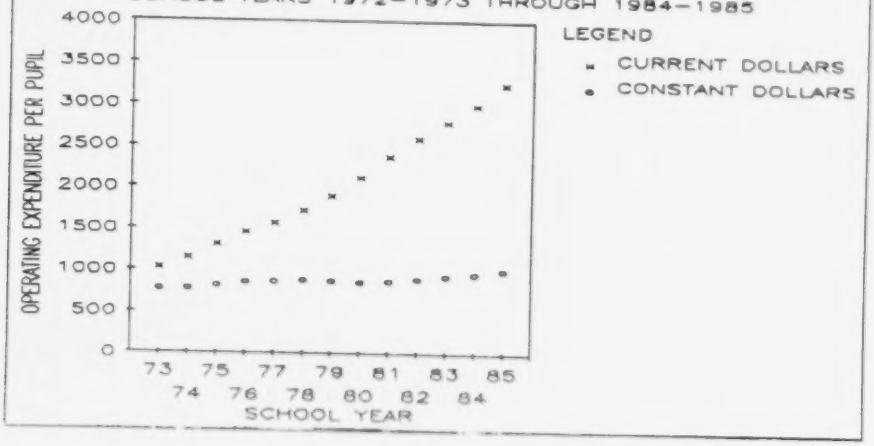


CHART 8C
UNIT DISTRICT OPERATING EXPENDITURE PER PUPIL
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS
SCHOOL YEARS 1972–1973 THROUGH 1984–1985

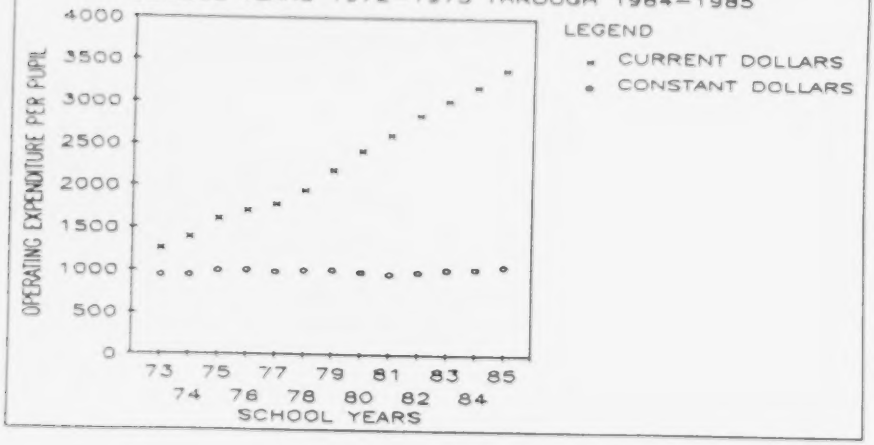


Table 9

ILLINOIS PER CAPITA INCOME
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS

Year	CPI 1967 1.0	Personal Income		Per Capita	
		Current$ (In millions)	Constant$	Current$	Constant$
1972	0.799	57,695	46,098	5,131	4099.67
1973	0.751	64,267	48,265	5,750	4318.25
1974	0.677	69,950	47,356	6,268	4243.44
1975	0.620	75,666	46,913	6,789	4209.18
1976	0.587	81,798	48,015	7,308	4289.80
1977	0.551	90,371	49,794	8,049	4435.00
1978	0.512	99,877	51,137	8,887	4550.14
1979	0.460	110,032	50,615	9,799	4507.54
1980	0.405	123,774	50,128	10,819	4381.70
1981	0.367	136,995	50,277	11,940	4381.98
1982	0.346	141,483	48,953	12,326	4264.80
1983	0.335	147,212	49,316	12,811	4291.69
1984	0.321	161,118	51,719	13,984	4488.86
1985	0.310	169,999	52,700	14,738	4568.78

Source: Statistical Abstracts of the United States, 1987, and Survey of Current Business, 1972-75, 1976-79, and 1980-85.

CHART 9A: ILLINOIS PER CAPITA INCOME
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS
YEARS 1972–1973 THROUGH 1985–1986

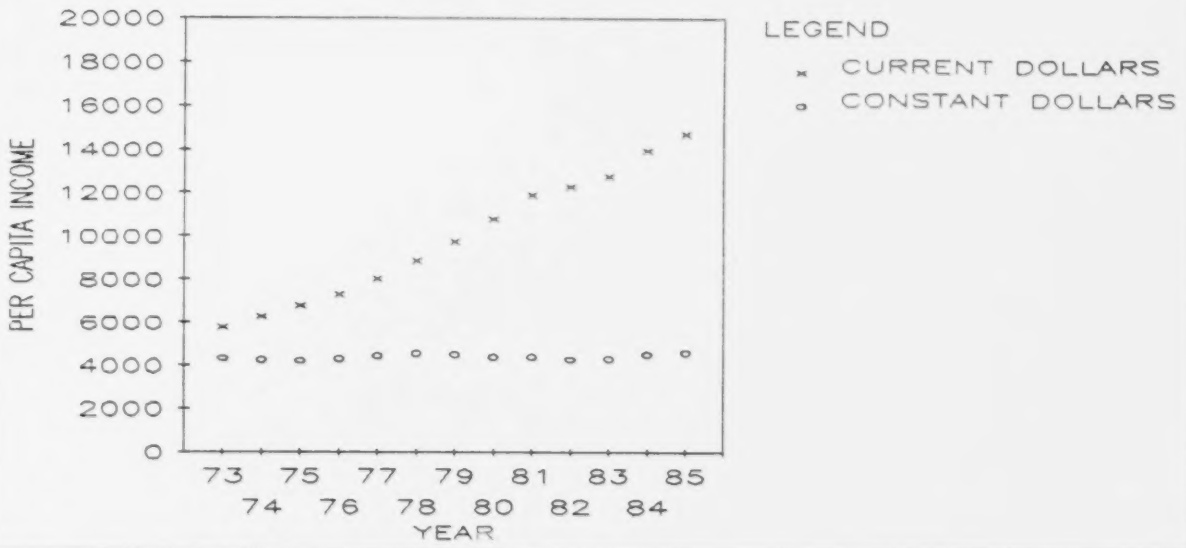


CHART 9B: ILLINOIS PER CAPITA INCOME
CURRENT DOLLARS AND 1967 CONSTANT DOLLARS
YEARS 1972–1973 THROUGH 1985–1986

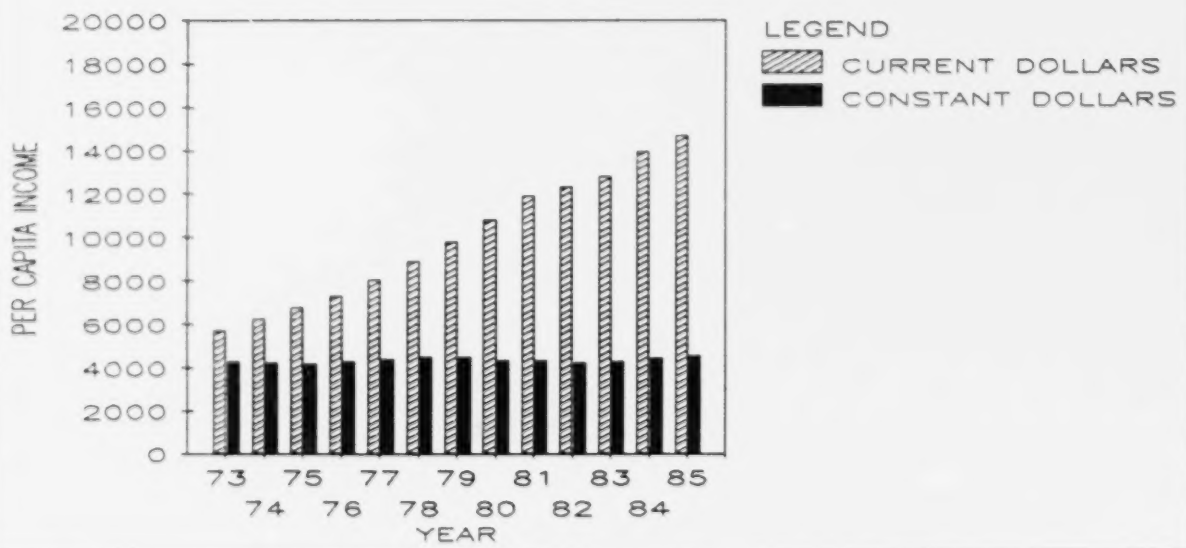


Table 10

ILLINOIS DISTRICT OPERATING EXPENDITURE EFFORT AND PER CAPITA TUTION CHARGE EFFORT

Year	CPI 1967 1.00	District Operating Expense Current$	Constant$	Per Pupil Tuition Charge Current$	Constant$	Per Capita Income Current$	Constant$	Effort Per Capita Income Districts	Tuition
1972-73	0.751	1,228.200	922.378	1,100.550	826.513	5,750.000	4,318.250	0.214	0.191
1973-74	0.677	1,359.560	920.422	1,229.070	832.080	6,268.000	4,243.440	0.217	0.196
1974-75	0.620	1,560.930	967.777	1,369.460	849.065	6,789.000	4,209.180	0.230	0.202
1975-76	0.587	1,384.450	812.672	1,490.360	874.841	7,308.000	4,289.800	0.189	0.204
1976-77	0.551	1,777.510	979.408	1,560.680	859.935	8,049.000	4,435.000	0.221	0.194
1977-78	0.512	1,948.250	997.504	1,697.290	869.012	8,887.000	4,550.140	0.219	0.191
1978-79	0.460	2,174.050	1,000.063	1,887.930	868.448	9,799.000	4,507.540	0.222	0.193
1979-80	0.405	2,419.650	979.958	2,077.270	841.294	10,819.000	4,381.700	0.224	0.192
1980-81	0.367	2,654.370	974.154	2,288.270	839.795	11,940.000	4,381.980	0.222	0.192
1981-82	0.346	2,904.240	1,004.867	2,543.620	880.093	12,326.000	4,264.800	0.236	0.206
1982-83	0.335	3,110.490	1,042.014	2,698.490	903.994	12,811.000	4,291.690	0.243	0.211
1983-84	0.321	3,295.270	1,057.782	2,821.910	905.833	13,984.000	4,488.860	0.236	0.202
1984-85	0.310	3,525.760	1,092.986	3,070.000	951.700	14,738.000	4,568.780	0.239	0.208

Sources: Statistical Abstracts of the United States, Survey of Current Business, and State Local and Federal Financing for Illinois Public Schools, for appropriate years.

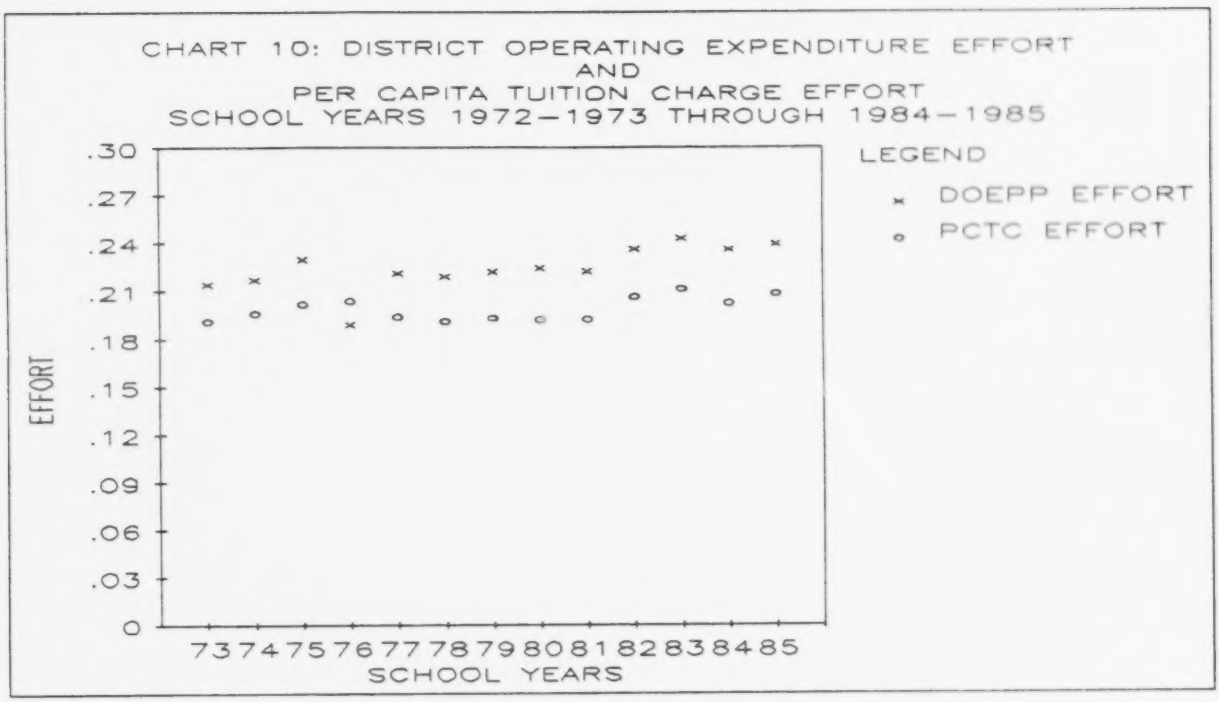


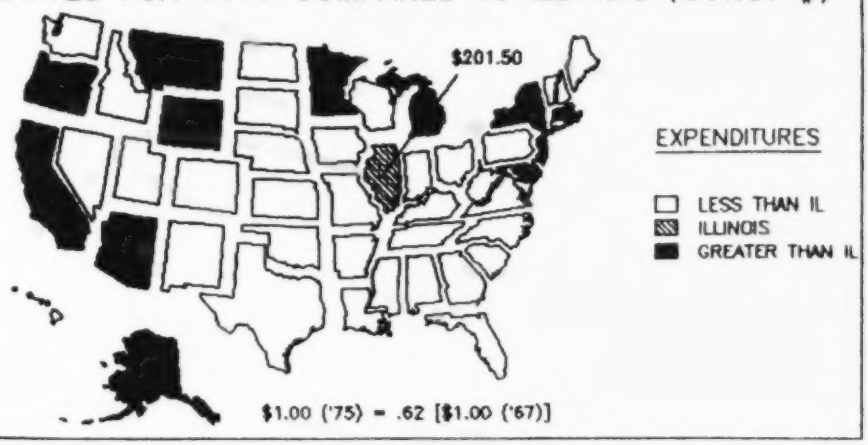
CHART 10: DISTRICT OPERATING EXPENDITURE EFFORT
AND
PER CAPITA TUITION CHARGE EFFORT
SCHOOL YEARS 1972–1973 THROUGH 1984–1985
.30
.27
.24
.21
.18
.15
.12
.09
.06
.03
0
EFFORT
73 74 75 76 77 78 79 80 81 82 83 84 85
SCHOOL YEARS
LEGEND
DOEPP EFFORT
PCTC EFFORT

Table 11

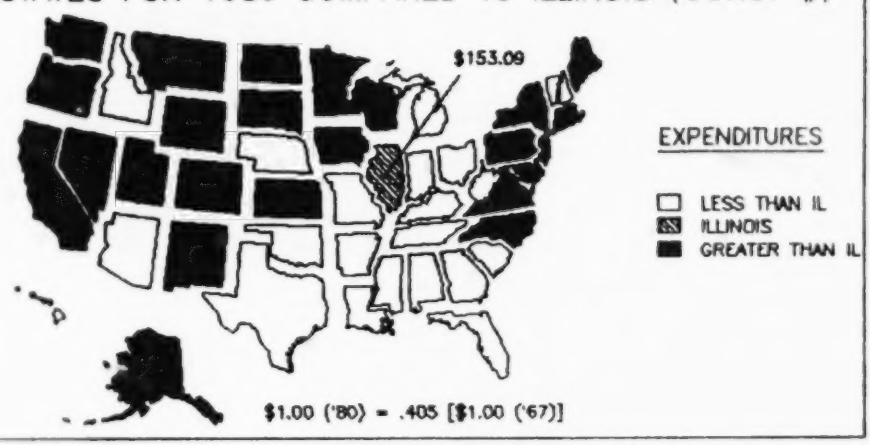
STATES RANKED BY PER CAPITA SCHOOL EXPENDITURE
1967 CONSTANT DOLLARS

States	1975	States	1980	States	1985
Alaska	396.80	Alaska	388.80	Alaska	427.80
New York	253.58	Wyoming	244.62	Wyoming	370.76
Wyoming	252.34	Montana	208.98	Montana	235.60
Minnesota	237.46	New York	208.17	New York	229.09
Maryland	227.54	New Mexico	200.07	New Jersey	227.23
Michigan	227.54	Colorado	196.83	New Mexico	226.92
New Jersey	225.60	Utah	190.53	Texas	215.76
Delaware	225.06	Iowa	186.70	Connecticut	209.56
Oregon	221.42	New Jersey	184.68	Michigan	206.77
Massachusetts	210.18	Minnesota	184.68	Washington	199.33
Arizona	205.22	Massachusetts	183.87	Oregon	198.40
Montana	205.22	Oregon	182.65	Vermont	194.68
California	205.22	Pennsylvania	180.22	Kansas	194.68
Dist Columbia	206.98	Delaware	176.98	Indiana	193.75
Illinois	201.50	Wisconsin	176.58	Utah	191.58
Washington	198.40	Connecticut	175.77	Wisconsin	190.96
Connecticut	198.40	Nevada	175.36	Delaware	190.03
Pennsylvania	197.78	Dist Columbia	172.12	Oklahoma	189.72
Nevada	196.54	Kansas	168.07	Dist Columbia	189.72
Vermont	195.92	California	166.45	Maryland	187.24
New Mexico	191.58	South Dakota	164.43	Minnesota	184.14
Wisconsin	191.58	Maryland	163.21	Colorado	183.21
Utah	190.96	Washington	156.33	Pennsylvania	182.59
Colorado	187.24	Maine	156.33	Massachusetts	181.04
Hawaii	185.38	North Carolina	154.30	North Dakota	180.73
Iowa	179.80	North Dakota	153.90	California	178.87
Virginia	177.94	Virginia	153.49	Iowa	177.63
New Hampshire	175.46	Illinois	153.09	Hawaii	175.46
Idaho	174.84	Texas	153.09	Maine	171.74
Rhode Island	171.12	Oklahoma	150.25	Ohio	168.95
Ohio	169.88	Arizona	147.01	West Virginia	167.71
Florida	166.78	Michigan	144.99	Virginia	166.78
Texas	166.16	Ohio	143.77	Rhode Island	163.37
Kansas	166.16	New Hampshire	143.77	Illinois	161.82
Indiana	164.92	Vermont	142.56	South Carolina	161.20
Nebraska	162.44	Nebraska	142.56	Nebraska	160.89
South Dakota	161.20	Idaho	142.46	South Dakota	160.58
Maine	161.20	Louisiana	141.75	Nevada	158.10
Louisiana	158.72	Indiana	140.94	Idaho	154.69
North Dakota	157.48	Rhode Island	140.53	Georgia	154.69
West Virginia	155.62	Arkansas	140.13	Louisiana	153.76
North Carolina	155.00	Florida	137.29	Arizona	151.20
Georgia	155.00	West Virginia	131.62	Florida	150.04
South Carolina	153.76	Missouri	127.57	Kentucky	146.32
Oklahoma	149.42	Georgia	127.17	New Hampshire	144.77
Missouri	148.80	Alabama	123.52	Missouri	140.12
Tennessee	143.84	South Carolina	123.12	North Carolina	137.02
Arkansas	134.54	Hawaii	114.21	Arkansas	134.85
Alabama	130.82	Mississippi	113.40	Alabama	132.68
Mississippi	122.14	Tennessee	107.32	Tennessee	131.75
Kentucky	120.28	Kentucky	100.84	Mississippi	122.45

MAP 11A: PER CAPITA SCHOOL EXPENDITURES OF THE STATES FOR 1975 COMPARED TO ILLINOIS (CONST $)



MAP 11B: PER CAPITA SCHOOL EXPENDITURES OF THE STATES FOR 1980 COMPARED TO ILLINOIS (CONST $)



MAP 11C: PER CAPITA SCHOOL EXPENDITURES OF THE STATES FOR 1985 COMPARED TO ILLINOIS (CONST $)

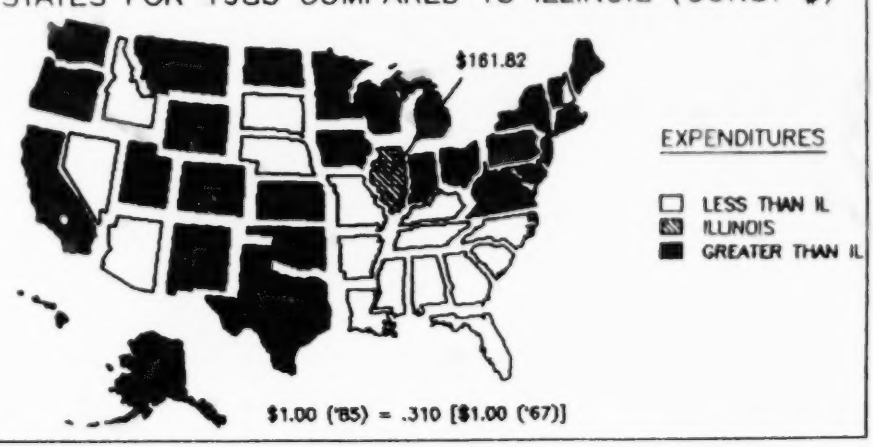
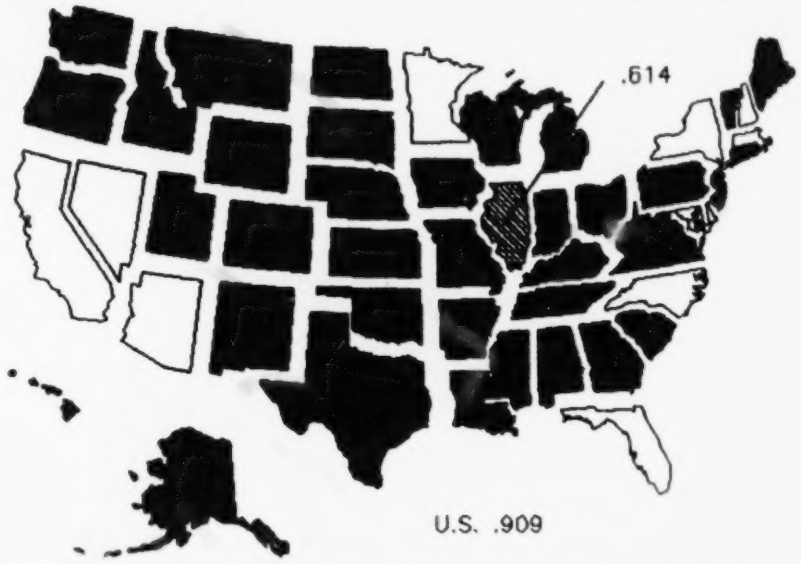


Table 12

AVERAGE MEASURE OF ELASTICITY FOR THE FIFTY STATES

STATE	% CHANGE EXPENDITURE	% CHANGE INCOME	MEASURE OF ELASTICITY	% NATIONAL AVERAGE
WYOMING	225.356	118.505	1.902	209.203
MONTANA	138.197	107.714	1.283	141.144
KENTUCKY	154.342	124.682	1.238	136.181
NORTH DAKOTA	131.352	107.092	1.227	134.932
OKLAHOMA	165.057	138.846	1.189	130.779
TEXAS	171.074	144.770	1.182	129.999
ALASKA	138.442	119.490	1.159	127.459
KANSAS	150.833	130.564	1.155	127.090
WEST VIRGINIA	129.956	112.769	1.152	126.778
NEW MEXICO	142.928	134.935	1.059	116.528
UTAH	120.677	116.836	1.033	113.628
INDIANA	121.146	122.178	0.992	109.082
IOWA	103.074	112.073	0.920	101.178
ALABAMA	120.588	132.609	0.909	100.039
ARKANSAS	113.648	127.214	0.893	98.279
HAWAII	100.856	113.238	0.891	97.982
OREGON	106.383	120.587	0.882	97.052
WASHINGTON	113.081	128.555	0.880	96.769
IDAHO	96.586	110.215	0.876	96.408
OHIO	109.543	127.996	0.856	94.151
SOUTH DAKOTA	105.979	124.356	0.852	93.754
SOUTH CAROLINA	110.262	129.840	0.849	93.423
WISCONSIN	111.964	135.169	0.828	91.125
NEBRASKA	100.000	124.080	0.806	88.661
NEW JERSEY	123.184	156.665	0.786	86.501
MAINE	114.629	147.962	0.775	85.228
LOUISIANA	103.950	138.205	0.752	82.744
CONNECTICUT	119.631	159.465	0.750	82.530
TENNESSEE	97.579	130.924	0.745	81.992
GEORGIA	107.489	146.246	0.735	80.856
MICHIGAN	86.003	121.291	0.709	78.004
PENNSYLVANIA	90.682	128.745	0.704	77.487
MISSISSIPPI	89.646	128.698	0.697	76.630
VERMONT	99.834	144.813	0.689	75.841
RHODE ISLAND	95.769	141.613	0.676	74.398
COLORADO	99.142	151.075	0.656	72.194
VIRGINIA	98.305	151.998	0.647	71.150
MISSOURI	89.333	143.149	0.624	68.653
ILLINOIS	73.658	119.974	0.614	67.541
FLORIDA	86.310	142.421	0.606	66.668
DISTRICT OF CO.	83.125	137.558	0.604	66.478
NEW YORK	86.198	144.828	0.595	65.476
NORTH CAROLINA	84.926	144.038	0.590	64.863
MASSACHUSETTS	91.653	168.042	0.545	60.002
NEVADA	64.600	120.394	0.537	59.029
DELAWARE	57.317	113.528	0.505	55.541
NEW HAMPSHIRE	85.976	180.012	0.478	52.543
MINNESOTA	68.466	143.632	0.477	52.439
MARYLAND	68.254	146.525	0.466	51.245
CALIFORNIA	66.819	146.176	0.457	50.288
ARIZONA	48.851	136.176	0.359	39.465
UNITED STATES	120.590	132.610	0.909	0.909

MAP 12: 1974-75 / 1984-85 ELASTICITY MEASURE FOR THE 50 STATES. RATIO OF EXPENDITURES AND INCOME



ELASTICITIES

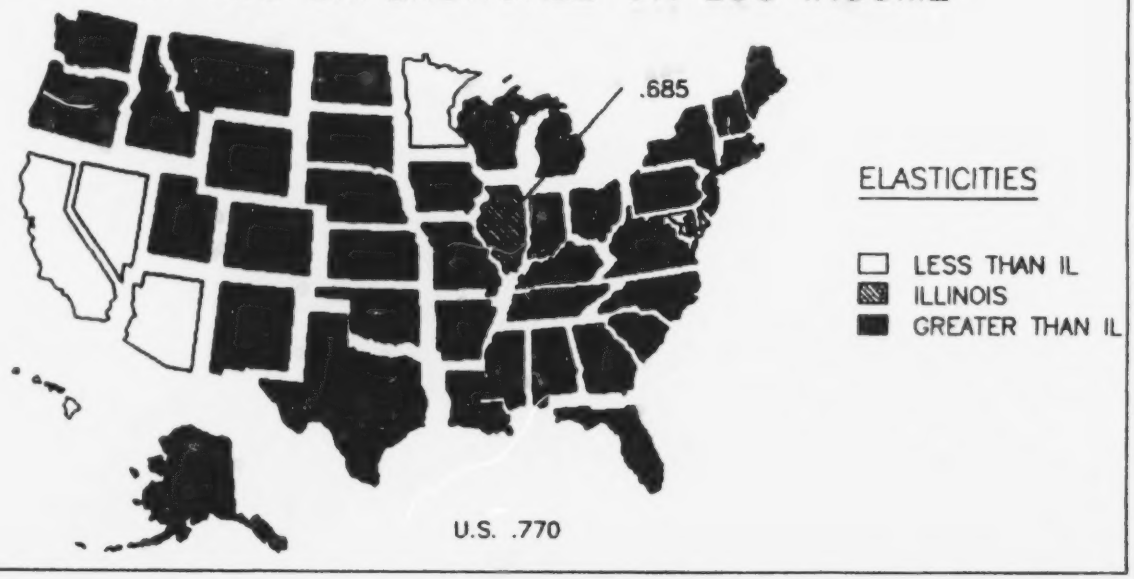
- LESS THAN IL
- ILLINOIS
- GREATER THAN IL

Table 13

ELASTICITY OF THE 50 STATES: REGRESSION OF LOG EXPENDITURES ON LOG INCOME

States	Elasticity	States	Elasticity
WYOMING	1.497	TENNESSEE	0.804
MONTANA	1.148	LOUISIANA	0.794
WEST VIRGINIA	1.127	MISSOURI	0.776
NORTH DAKOTA	1.103	VIRGINIA	0.769
ALASKA	1.067	MISSISSIPPI	0.758
OKLAHOMA	1.065	MICHIGAN	0.755
TEXAS	1.059	NORTH CAROLINA	0.743
KENTUCKY	1.037	RHODE ISLAND	0.739
OREGON	1.007	FLORIDA	0.736
KANSAS	1.006	COLORADO	0.725
UTAH	1.002	NEW YORK	0.720
ARKANSAS	1.001	CONNECTICUT	0.715
ALABAMA	0.991	MASSACHUSETTS	0.706
SOUTH DAKOTA	0.942	NEW HAMPSHIRE	0.700
OHIO	0.935	VERMONT	0.688
NEBRASKA	0.920	PENNSYLVANIA	0.687
SOUTH CAROLINA	0.904	DISTRICT OF CO.	0.686
INDIANA	0.874	ILLINOIS	0.685
NEW MEXICO	0.872	HAWAII	0.643
GEORGIA	0.870	NEVADA	0.632
WASHINGTON	0.870	MARYLAND	0.599
IOWA	0.867	DELAWARE	0.585
WISCONSIN	0.862	MINNESOTA	0.582
IDAHO	0.822	CALIFORNIA	0.558
MAINE	0.819	ARIZONA	0.419
NEW JERSEY	0.805		
		UNITED STATES	0.770

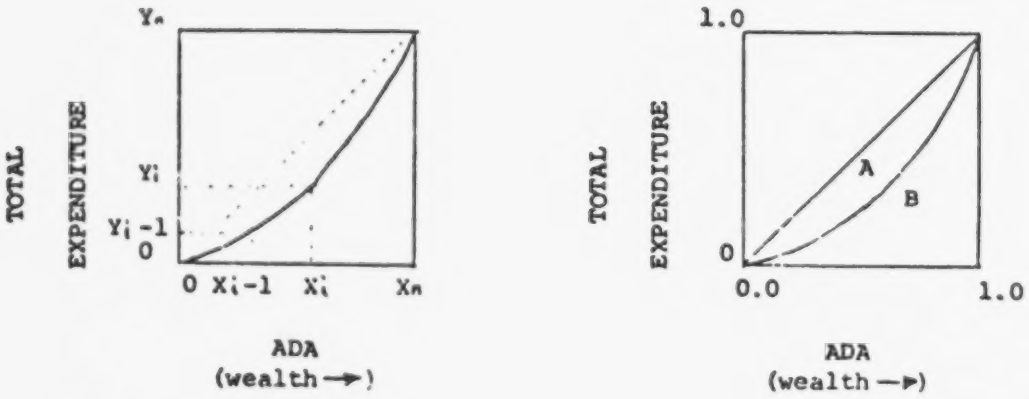
MAP 13: ELASTICITY OF THE 50 STATES - REGRESSION OF LOG EXPENDITURES ON LOG INCOME



APPENDIX B

COMPUTATION OF GINI COEFFICIENT

The districts are sorted in ascending order of wealth per pupil. The cumulative proportions of pupils in the districts are represented by the horizontal axis and the cumulative proportions of total operating expenditures accounted for by these districts are represented by the



vertical axis. The curve thus plotted would be a straight line if the operating expenditures per pupil were the same in all districts. A sagging curve represents lesser expenditure in poorer districts. The measure of this inequality as defined by Gini Coefficient G is given by the formula:

$$G = \frac{\text{Area A}}{\text{Area (A+B)}}$$

or after further simplication

$$G = \frac{0{\cdot}5 - \text{Area B}}{0{\cdot}5}$$

$$= 1 - 2\text{Area B} \qquad (1)$$

Area B is the area under the curve and if n is the number of districts, and

X_i = cumulative proportion of ADA for the ith district

y_i = cumulative proportion of $ for the ith district

$$\text{Then Area B} = \sum_{i=1}^{n} \frac{(x_i - x_{i-1})\,(y_{i-1} + y_i)}{2}$$

$$\text{or 2 Area B} = \sum_{i=1}^{n} (x_i y_{i-1} - x_{i-1} y_{i-1} + x_i y_i - x_{i-1} y_i)$$

$$= (x_i y_0 - x_0 y_0 + x_1 y_1 - x_0 y_1$$

$$+ x_2 y_1 - x_1 y_1 + x_2 y_2 - x_1 y_2$$

$$+ x_n y_{n-1} - x_{n-1} y_{n-1} + x_n y_n - x_{n-1} y_n)$$

$$= (x_2 y_1 - x_1 y_2) + (x_3 y_2 - x_2 y_3) + \ldots$$

$$+ (x_n y_{n-1} - x_{n-1} y_n) + x_n y_n$$

$$= \sum_{i=2}^{n} (x_i y_{i-1} - x_{i-1} y_i) + 1 \qquad (2)$$

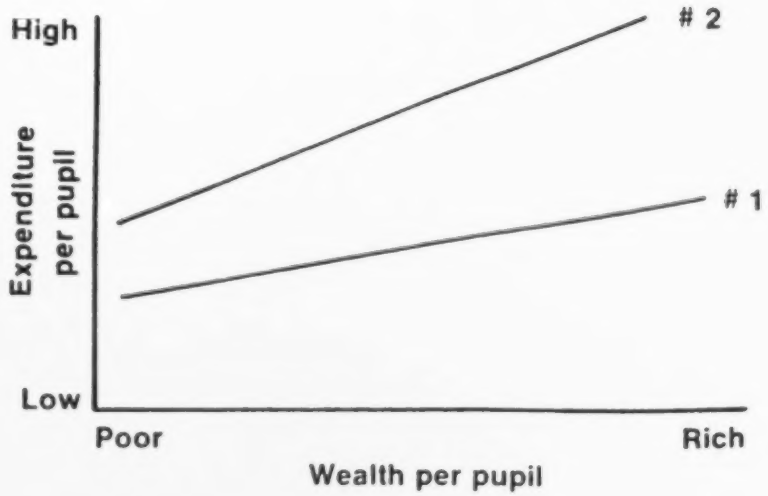
$$= 1 - \sum_{i=2}^{n} (x_{i-1} y_i - x_i y_{i-1})$$

substituting the value of area B in eq 1

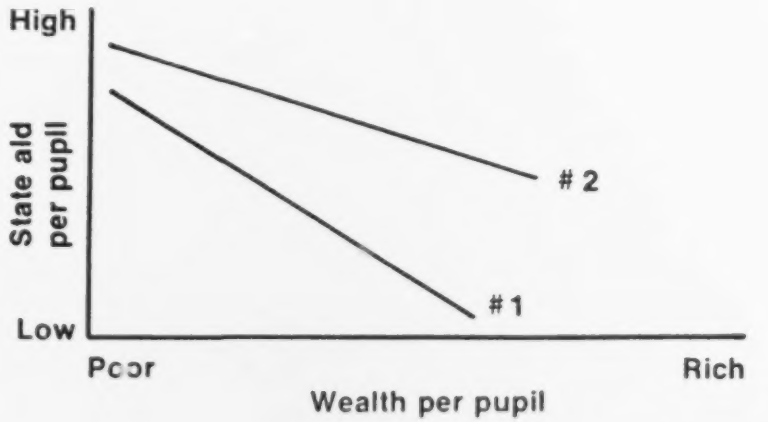
$$G = \sum_{i=2}^{n} (x_{i-1} y_i - x_i y_{i-1}) \qquad (3)$$

ADEQUACY VS. EQUITY: SOME THEORETICAL MODELS

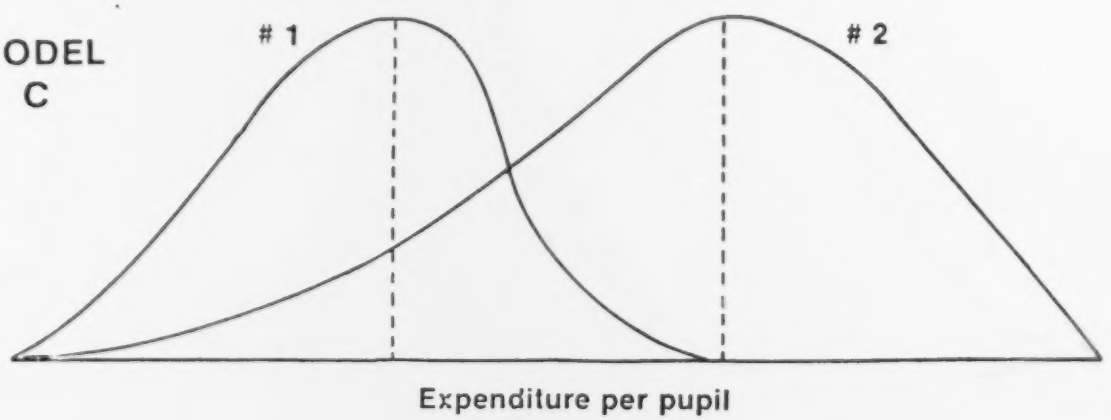
MODEL A



MODEL B



MODEL C



Special Appendix

THE CURRENT GENERAL STATE AID FORMULA IN ILLINOIS

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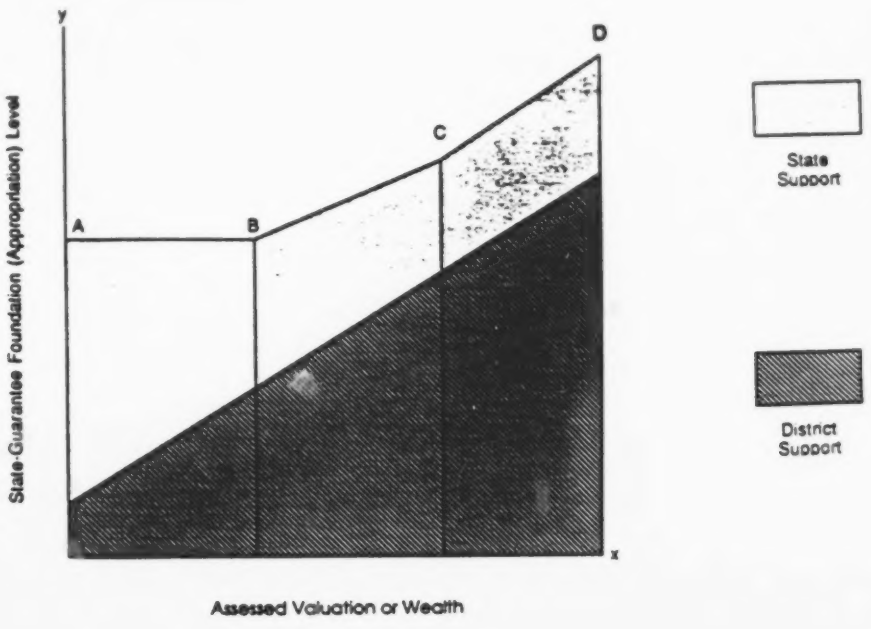
Center for the Study of Educational Finance

The current general state aid entitlement formula can be illustrated with a graph similar to the one appearing below, with the X-axis representing public school district wealth as measured by assessed valuation of real and personal-equivalent property, and the Y-axis representing the state appropriation per pupil attendance unit. The ABCD line represents the state-supported grant-in-aid funding for each public school child's instructional program and support services. Notice that the line remains level to point (B) and then begins to slope gradually and at (C) slopes more steeply. From that point on, the line parallels the district support level. The formula for the ABCD line has three expressions: special equalization, (A-B); alternate method, (B-C); and flat grant, (C-D), all of which will be explained later in the text. The State of Illinois guarantees a level of support per child up to a certain point based on a public school district's wealth (the equalization formula). The level of support then diminishes gradually (the alternate formula); and, finally, becomes a uniform amount (flat grant) regardless of the district's wealth.

General State Aid Entitlement Funding System



The level of grant-in-aid is contingent upon the state appropriation for the public schools' general state aid entitlement formula. In 1973, at the inception of the resource equalizer grant-in-aid formula, the foundation level represented an amount of money that was deemed to be adequate for the support of the instructional program and support services for a public school child. If a level of adequate support had been maintained through the years, regardless of the state's ability to support it, the state would have had to prorate its level of support in order to live within its means. Prorations of adequacy levels would have adversely affected the equity* of the formula because they would have hurt poor districts more than other districts. To avoid that, the foundation level has became an appropriation level instead of an adequacy level.

That impact on poor districts can be explained in this way: If a district receives a large amount of general aid--i.e., it falls far to the left on the x-axis in the illustration--and the state reduces the funding level as a result of appropriations, a poor district is hurt more by virtue of the fact that it is receiving a large amount of support. For example, suppose the district is receiving $5,000,000 in general state aid and the legislature appropriates only enough to meet 90 percent of the adequacy level, that district will lose $500,000 in state aid (10% of $5,000,000). Whereas another district that may be receiving $100,000 in general state aid and is reduced by 10%, will lose only $10,000 (10% of $100,000). The wealthier district loses $10,000 in state aid; the poorer district loses $500,000 in state aid--hardly an equitable distribution of the forced proration due to trying to maintain an adequacy level. Since 1980, it has become necessary to derive foundation levels that reflect the state's ability to pay rather than levels of educational adequacy.

Formula Components

In order to understand the current Illinois general state aid entitlement formula, it helps to break it down into its three expressions: special equalization, alternate method, and flat grant. It helps, too, to break the expressions down into their factors of pupil attendance, state-guaranteed wealth, general state aid operating tax rate, and foundation (appropriation) level.

The special equalization expression of the formula is the mechanism through which approximately seventy-six percent of the school districts receive their grant-in-aid. The first step in this expression is to compute the district's weighted pupil attendance. The second is to compute the difference between the state's guaranteed equalized assessed valuation per attendance unit and the district's equalized assessed valuation per attendance unit. And the third is: the difference (state-guaranteed amount minus the district amount) is multiplied by a constant tax rate set by the state (1.10 for high school, 1.90 for elementary and 2.76 for unit). The result is the general state aid entitlement per pupil under the special equalization part of the formula.

The next expression is the alternate method. To compute the general state aid under the alternate portion of the formula, the district multiplies its attendance factor times 87 percent of the state-guaranteed equalized assessed valuation divided by the district wealth times 13 percent of the district's foundation level. Approximately eighteen percent of public school districts in Illinois receive grant-in-aid under the alternate method expression of the formula.

*Equity essentially means that the support from a funding formula provides the same level of education for a child regardless of where that child resides in the state.

Under the flat grant portion of the formula, the district multiplies the foundation level times 7 percent and multiplies that by the attendance number. About six percent (6%) of the districts receive aid through this expression.

In order to determine which of the three amounts the district will receive under the general state aid entitlement formula, the district selects the greatest amount--the amount computed as special equalization, the alternate method amount, or the flat grant amount.

We have referred to the pupil attendance component as the attendance unit or the attendance number. School districts keep accurate records of the pupils' daily attendance throughout the school year and record on the entitlement claim form the total days of attendance by statistical period within the school year. Statistical periods are the months of the school year, except August and September are combined and May and June are combined. There are nine statistical periods: (1) August/September, (2) October, (3) November, (4) December, (5) January, (6) February, (7) March, (8) April, and (9) May/June. Districts record the pupil attendance by these grade levels: pre-kindergarten/handicapped, kindergarten, elementary 1-6, middle 7-8, and high school 9-12. On the claim form for each statistical period, grade level attendance is added across and the total is divided by the number of pupil attendance days in the statistical period. That result, an averaged daily attendance for each statistical period, is repeated for each of the nine statistical periods until average daily attendance figures are computed for each.

Districts then select the best three computed averages (the three largest numbers in the average daily attendance column). The days of attendance for those three best statistical periods are transferred to another part of the claim for summarizing. Pre-kindergarten through sixth-grade levels attendance data are combined. The seventh and eighth-grade levels remain the same. Ninth through twelfth-grade levels remain the same. The days of pupil attendance for the best three statistical periods are totaled and final averages are derived for the three levels--the combined preK-6, 7-8, and 9-12.

The 7-8 level is multiplied by 1.05 to weight it an additional five percent. The 9-12 average daily attendance number is multiplied by 1.25 to weight it an additional twenty-five percent. Unweighted ADA for PreK-6 is added to weighted ADA for 7-8 and to weighted ADA for 9-12 to form the aggregate total weighted average daily attendance (WADA) for the school district.

The best three statistical periods of the school year are utilized in the school aid formula. Consequently; if, for example, there was concern by the administration over excessive absences in winter months because of family vacations or illnesses, it need not be a concern because the absences may have no effect on the general state aid if the months in question are not among the top three statistical periods. This should be interpreted with caution, however, because, as the reader will no doubt note, a good month that would have raised the overall average, may be dropped because of the excessive absenteeism.

In order to use the attendance number as it has been derived, the district must have accounted for 176 days of pupil attendance. Any fewer days will result in a penalty of 1/176 of the general state aid entitlement amount for each day under the required number.

As a second factor in the grant-in-aid claim formula, a district needs to compute its general state aid equalized assessed valuation (GSAEAV). The wealth factor on the general

state aid entitlement form is more than real property equalized assessed valuation wealth; it includes wealth equivalent to the revenue that is derived from the corporate personal property replacement tax. Since personal property is no longer taxable in Illinois, the state has supplanted it with a corporate personal property replacement tax and school districts receive corporate personal property replacement tax revenue from the Department of Revenue. The amount of that revenue for one calendar year is divided by a tax rate to derive the additonal-wealth for GSA. Corporate personal property replacement tax revenue divided by the district's total 1976 or 1977 tax rate derives an amount equivalent to the amount of personal property value. The personal property value is added to the real property value to arrive at the general state aid equalized assessed value for the district.

On another part of the claim form, the district records the weighted average daily attendance figure along with the weighted average daily attendance figures from two previous years. The total is divided by three to compute an average WADA. The district uses the greater of the three-year average or the current weighted average daily attendance. If enrollment is declining, that computation allows the district to use an average from previous higher years rather than the lower current attendance figure.

Attendance is weighted also with a low income eligibility component. The number of Chapter I eligible students in the district is divided by WADA to derive the percent of low income students in the district. That percent is divided by the state's percent of low income eligibles and the result is multiplied by the number .53. That product is multiplied by the district's Chapter I eligible number and the result is added to the larger of the two WADA figures, the three-year average or the current WADA. Note that ADA (average daily attendance) became WADA (weighted average daily attendance) which became CWADA (Chapter I weighted average daily attendance). CWADA is the attendance figure that is utilized in all three expressions of the formula, special equalization, alternate, or flat grant.

Dividing the foundation level by a constant tax rate set by the state, results in a state-guaranteed equalized assessed valuation factor for the formula. The constant tax rates, which are set by the state, are designed to achieve equality between the three different types of public school districts in Illinois: the elementary school district, the high school district, and the unit school district.

The district equalized assessed valuation is divided by the CWADA number to derive the amount of district wealth per attendance unit. Next, the district uses the actual operating tax rate in the formula if the district's actual maximum operating tax rate is at least 1.28 percent for elementary districts, 1.10 percent for high school districts, or 2.18 percent for unit districts. The state "backs" into the state guaranteed assessed valuation by dividing the foundation level by the maximum operating tax rate.

The general state aid formula can be expressed algebraically:

Special Equalization Expression $E = A \times (S-D) \times T$

Alternate Method $E = A \times \frac{S \times .87}{D} \times (F \times .13)$

Flat Grant $E = A \times (F \times .07)$

When:

E = General State Aid Entitlement amount
A = Attendance weighted per grade level and poverty impaction
S = State guaranteed wealth per CWADA
D = District wealth adjusted for personal property replacement per CWADA
T = Tax rate
F = Foundation Level

It should be noted that there are several ways in which the general state aid formula can be modified to promote one educational or fiscal policy over another. For example:

- Weighted average daily attendance computations can be changed. The cost of providing an educational program for a high school child is about 1.6 times the cost for an elementary (1-6 grades) child's program, and the weighting allowed in the formula is only 1.25. Changing that weighting factor to 1.6 instead of 1.25 would increase the weighted average daily attendance figure for high school districts and unit districts.

- Allowing unit districts to use the best three months of attendance for the K-8 level and the best three months of attendance for the 9-12 level, would benefit them more than the current algorithm since either type of dual district, K-8 or 9-12, uses its best three months of attendance. The unit (K-12) district must use the best three months K-12 total, which may not be the best three months of either K-8 or 9-12.

- The claim form could drop the three-year attendance averaging feature and require districts to use the current WADA.

- If the corporate personal property replacement tax revenue were not a part of the wealth computation for school districts, it would lower the equalized assessed valuation for school districts. Since the expression subtracts out from the entitlement the amount of revenue the district is able to raise with its assessed valuation real and personal property equivalent, that number would be smaller and the amount made up by the state would be larger.

- Greater access to the formula would be allowed to districts whose Chapter I impaction exceeds the statewide average if the poverty impaction ratios were changed so that actual ratios were applied instead of imposed limitations on the weighting computation.

- If the maximum operating tax rate were not applied to the district's actual equalized assessed valuation, the amount of money taken from the entitlement under the special equalization expression would be smaller. Were districts allowed to use the actual operating tax rate when it is lower than the maximum operating tax rate, less grant-in-aid would be taken from the entitlement.

- The first component of the special equalization expression is the attendance factor, the Chapter I weighted average daily attendance. The second component is the wealth factor, the state's guaranteed for assessed valuation resources behind each student. The initial computation in the expression is the

state-guaranteed equalized assessed valuation per CWADA. The second computation is the district's equalized assessed valuation per CWADA which is then subtracted from the guaranteed EAV per CWADA. In arriving at the wealth factor, if either the state-guaranteed equalized assessed valuation per CWADA were raised or the district equalized assessed valuation per CWADA where lowered, either through manipulation of the maximum operating tax rate, corporate personal property replacement tax revenue or something else, then the resulting wealth factor could be more in favor of the district or more in favor of the state. The third component, the maximum operating tax rate, depending on how that number is derived, will determine whether or not a district's financial circumstances change for better for worse. When the three (the CWADA, the wealth factor, and the tax effort factor) are combined, the full impact of each factor in the general state aid formula materializes.

In 1987, the general grant-in-aid formula was not easy to classify in school finance terms. It "looks like" a "guaranteed tax yield" approach; but, in actuality, it is much closer in its operation to a standard "Strayer-Haig" or "foundation" approach. The major difference between the 1986-87 general grant-in-aid formula and the "classic" Strayer-Haig is that the tax rate used in Illinois is not a mandated or required tax rate, but, rather, a "computational" rate set by the General Assembly.

In 1985, the Illinois Commission on the Improvement of Elementary and Secondary Education, chaired by Senator Arthur Berman and Representative Richard Mulcahey, finished its study of the Illinois education system. The result of that study was the education legislative package of 1985. Senate Bill 730 and House Bill 1070, addressed several issues in Illinois education among which was the funding system for public education. In SB730, under Topic #107, the current general state aid formula was designated for repeal on August 1, 1987, and the State Superintendent of Education was directed to propose a revised system of public school finance to the State Board of Education.

In 1987, just prior to the sunsetting deadline, both the Senate and the House passed House Bill 915, fittingly co-sponsored by Richard Mulcahey and Arthur Berman, which repealed that provision in the 1985 legislation that had repealed the funding system. The Commission's original intent was to trigger a reformed funding system that determine how much money was needed to establish the state's share, to achieve local equity, and to identify the sources from which money could be derived.

The State Superintendent proposed a three-tired funding formula to the Illinois State Board of Education at the meeting in June 1987. The formula included a flat grant tier, a special equalization tier, and a reward for effort tier and was adopted by the Board, but did not take the form of legislation. Neither did several other proposed formulae and thus far no progress has been made toward achieving the Commission's original goals. In fact, a step backward from equity was effectuated when the state had to cut the foundation level by 3 1/2 percent.

The current situation is politically charged because a tax increase seems necessary before any new money is available to revise the formula and to achieve more local equity. Obviously, a tax increase is not a form of legislation that legislatures will rush to pass. It seems that funding for public education will wait in the same queue with other state programs, being no more nor less important than other state obligations, until the tax issue is resolved.